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SCAFFOLDING FOR HIRE AND SALE.

THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

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FURNITURE DESIGN

A RECENT discussion at the Architectural Association, opened by Miss Margaret Jourdain, on the influence of architecture on furniture design, was unusually stimulating and provocative. The authorities differed. They differed positively and divertingly, and those who were present or who subsequently read the record of the proceedings must have felt strangely without handrails, though happily not without inspiration. Have architects helped? Have they not actually hindered the craftsman in his art? Should they claim to be "whole-hoggers" in interior design, or are their activities to be restricted to the inventory of landlord's fixtures? Furthermore, is even scholarship a pedantic snare to the designer, and the virtue of function a limitation? Many questions indeed, and much beating of the air. One appreciates the wisdom of Mr. Moberley's remark that "hardly ever had good design been produced out of the blue"; furniture craft, he suggested, was now suffering from lack of new sources of inspiration in material and purpose, our needs in tables and chairs being much as they always were.

Latterly taste has been the product of the few and the acceptance of the many; it has not been acquired in its elements either through hand-work, or academically as part of general culture. If such a change in general culture were to appear we might expect a new outlook, one that would be refreshingly independent and of profound importance in its reaction on the artist. We may already trace signs pointing to such a possibility; as yet it is but a flutter among the educated, but the educated embraces an ever-widening circle, and once the revival takes wing it will mount in a flight. The signs may be seen in a growing and general recognition of worth, and a corresponding suspicion of cant and trumpery. In two of the most unpromising examples—the millionaire's motor-car and the servant's best hair brush—quality counts; and, which is even more interesting, such details as the Nottingham lace window curtain are giving way to an outlet of coloured casement blinds that is not merely imitative but genuinely expressive.

It is perhaps a subject for regret that Miss Jourdain should have felt it appropriate to temper her subject to her audience, by restricting her remarks and her illustrations to the architect's historical association with furniture. It is quite difficult enough for architects to secure clients for house design and legitimate interior decoration, without attempting to press their influence further. A "one artist" house would pursue the idea of a "period" house to a logical and undesirable limit. Instinctively we respond to the appeal for catholicity. A museum is not a home; neither is the "ideal modern scheme" that eschews the associations and even the foibles of our forebears. Many of us would agree that when it comes to our own home we have no set principles, but seek for character and compromise as well as beauty. The genius of the home is adaptability, though this is not practised as it should be, and there is good sense in the Irishman's advice at picnics—to use the wrong thing in the right place.

If the architect's influence is to be widely effective it will be in the open market of furniture design. The question raises that most difficult and provoking adjustment between the commercial and professional ideal; one that still demands but awaits solution. Many architects would be grateful for guidance, such as Miss Jourdain could give, on what constitutes appropriate design in the special furniture technique, and where it is best demonstrated in either historical or modern work. Hints on wood, graining, and craftwork would be of real service, and such understanding would enable architects to help their clients in making a wise selection far more than would a few trade tips picked up from a connoisseur. The Design and Industries Association has done much to foster live design, founded on traditional inspiration, and one cannot help feeling that propaganda on such lines as these would be of more constructive service than a purely historical survey, however scholarly and engaging.

The public that is now rejecting the Nottingham lace curtain will soon discard the platitudinous walnut suite, and it is just that public that should be adequately guided and served. If art has actuality it is surely a common heritage, and in its simplest elements understandable because it is sane. To the sophisticated eye a functional unornamented chair may appear to be not only without art but provocatively lacking in quality; yet such a chair marks a definite step in æsthetic progress and understanding. It implies the element of coherence, and the generation that learns to prefer its significance to the banal and self-important will find its way to a distinctive expression and the right instinct of decoration. It is natural for artists to set a high value on handwork, not only because it has its own special quality and association, but for its direct effect upon hand and eye, at the same time it cannot be denied that a purist attitude has its dangers, especially when it creates a divorce between artist and machine. The factory product has its own technique, and if the artist will not study its limitations and its possibilities we shall continue to get deplorable results. Architects may not yet be consulted as they should be in their own province, but they wield greater influence than they realise, and they would not only encourage but help in good furniture design if those of them who were interested were to obtain an introduction to a furniture factory and learn what it has to teach. It is only since the war that architects have studied cheap housing on a large scale; it may not be their official job to proceed beyond the kitchen dresser, but it is at least as much within their province to study those common things that are produced by the thousand as to profess an interesting acquaintance with the pedigree of the foliated scroll on the rich chair back. And it can be said to their credit that some of our best architects are giving more attention to the little things that matter in the equipment of the homes.

If a democracy that has not acquired education is a mere mob, then the commercial mass production that is without thought or taste is worse than commonplace—it is vulgar. We may despise public taste for its blatancy, and scold the shopkeeper for pushing shoddy wares, but let us be quite sure that the people who should be able to teach have taken the trouble to learn what is needed and how it may best be procured, and that the public have very little choice in their selection when their purchasing power is related to the costs of the wares which are offered them.

NOTES.

Housing and Rent Restriction.

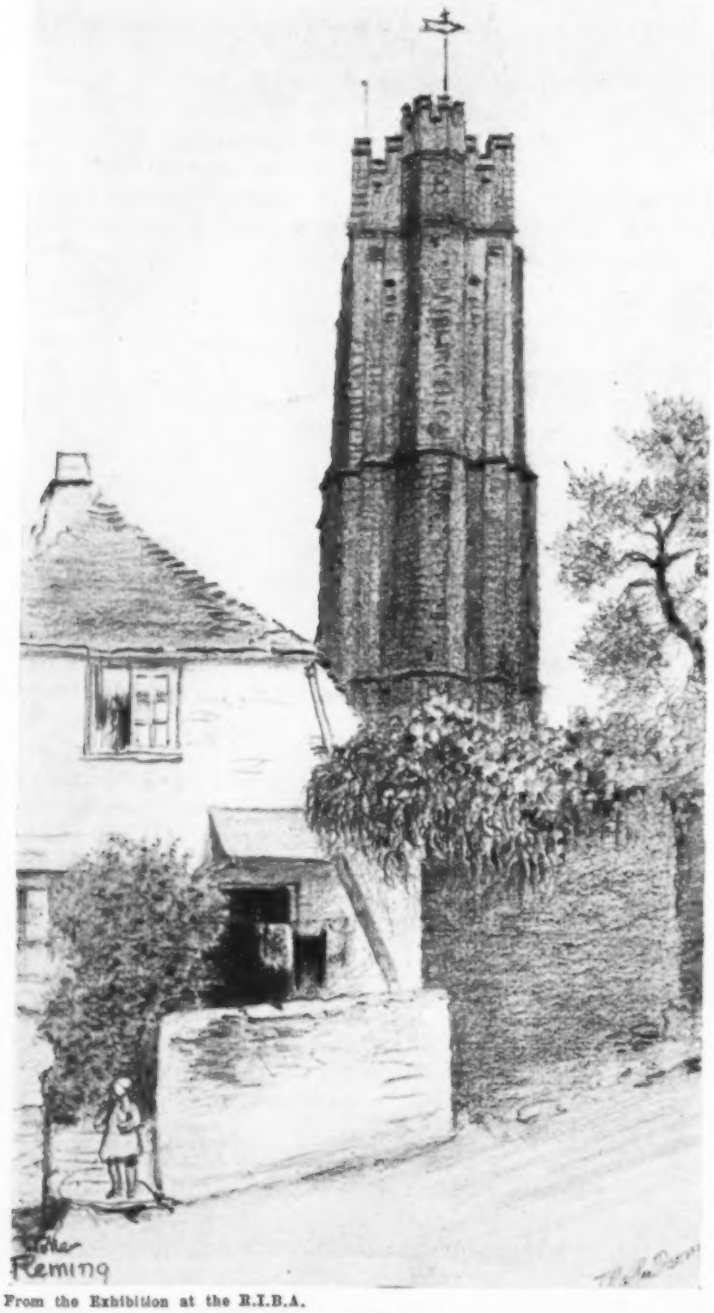
IN a very temperate article in the Housing and Building Supplement of the *Times*, Mr. Wheatley, the late Minister of Health, dealt with the Housing Act of 1924, which he was instrumental in passing, but in that article this significant passage occurs: "If houses for renting are to be provided in future it must be by public enterprise. In the old days two classes of people were interested in the supply of working-class housing accommodation—the builder and the investor. The builder was very frequently a man with small capital who worked largely on loans and had to find a market for his property at the earliest moment in order to release his capital. The purchaser was a person with surplus means for which he wanted an investment, and bricks and mortar had a peculiar attraction for this very worthy class. Nowadays such an investment is generally regarded as being far, far removed from the gilt-edged category. I know of no locality in which there is any reasonable expectation of investors returning to this field, although I have made widespread inquiries on this subject." To this statement no possible objection can be raised, but for the reason of this change of attitude on the part of investors no inquiry need go farther than the Houses of Parliament. Rent restriction, and rent restriction run riot is the cause and the sole cause.

Private Enterprise.

TAKING Mr. Wheatley's statement, the investor who particularly favoured bricks and mortar and working-class dwellings no longer regards this investment as gilt-edged. Who could regard with favour an investment which was specially selected by the Legislature to bear a burden imposed on no other class of investment in the country? If Consols were subject to restrictions in the market and could not be dealt with freely would they continue a gilt-edged security? Still less would they continue so if the holders had to pay a special contribution to another class in the country. Yet that is the position of the owner of house property subject to the Rent Restriction Acts. Then what has been the effect of this kind of special or class legislation? As Mr. Wheatley truly says, it has driven the investor from the field. Working-class dwellings, or any dwellings to be let, and which fall within the meshes of the Rent Restriction Acts, are no longer supplied by private enterprise, and in the case of working-class dwellings the community has to supply them by means of subsidies and rate aid, and thus this class of dwelling is passing out of private hands and must in a sense be nationalised, being municipally owned. The party to which Mr. Wheatley belongs welcome this; they see in rent restriction a measure fatal to private enterprise and leading to nationalisation, and they cling to it in its entirety, as favouring their policy, but such a policy does not appeal to the House of Commons as at present constituted, and it is time that the effect of rent restriction should be made apparent to the Legislature.

Transport Facilities.

MR. J. M. GATTI, in a recent review of the L.C.C. tramway accounts, which showed a net loss of £9,100,000, stated that "the average fare on the tramcar was 25 per cent. lower than the average fare on the omnibus on non-competitive routes. That alone represented a saving of £1,000,000 annually to the travelling public. They were, in addition, relieving the rates of the boroughs through which the tramways ran by no less than £284,000. Notwithstanding all that, let any omnibus come along and it had as good a chance as the tramcar of picking up a passenger. Such absolute indifference by the travelling public to its own interests, both as a traveller and a ratepayer, was difficult to explain or understand. If during the non-rush hours one passenger in four, or at most three, who was about to take an omnibus, would wait at the most for two minutes for a tramcar, all the extra revenue required would be obtained and London would be on the high road to accomplish what Glasgow had already achieved." This is all very well, but is it not asking too much of the travelling public to waste even two minutes in order to show appreciation of the fact that the tramways are relieving the rates? It is also difficult to understand why the public should be termed indifferent to their interests because they refuse to sacrifice the advantages of the superior speed of the omnibus. If this suggestion were carried into effect the total number of hours wasted, and the inconvenience caused, would appear to be colossal.

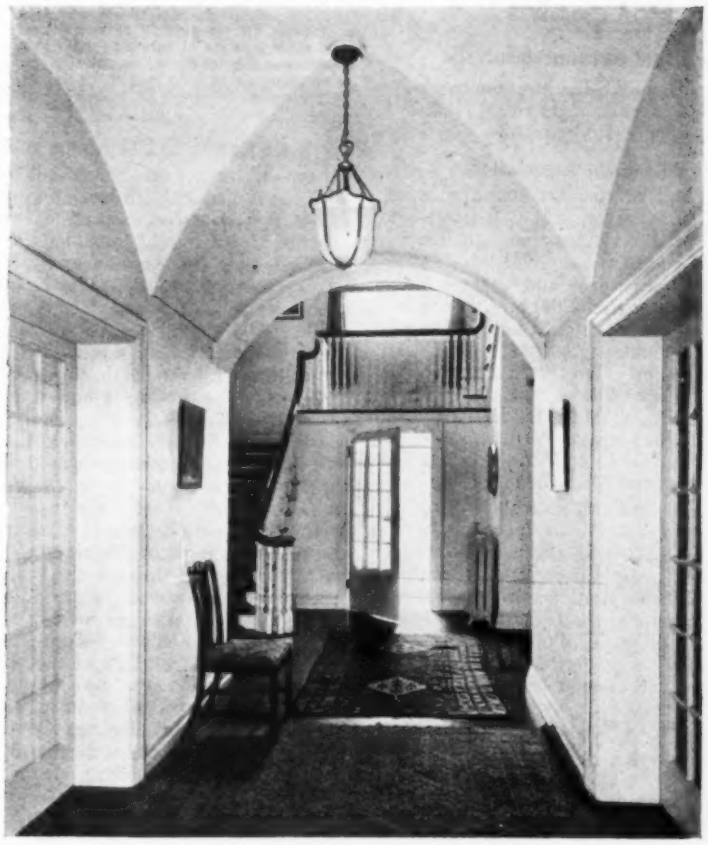


From the Exhibition at the R.I.B.A.

Sketch of Stoke Fleming Church. BY MR. T. RAFFLES DAVISON, Hon. A.R.I.B.A.

Windmills. Though perhaps difficult to connect their character directly with architectural forms, yet the design of a windmill is curiously delightful. Windmills, now so rapidly disappearing, gave an interest and adornment to the landscape only less than the parish church; their external appearance and mechanism so nearly related to nature, and their construction including the virtues of a long tradition of handicraft applied in transmitting the force of wind to machinery to supply man's wants. Some will recall the more eastern districts of Lincolnshire, which bring to the mind the solitary mills, many of them of the earlier design, in which the whole body of the mill moved, revolving on a central post: and others of later character, with a little set of sails aloft which revolved instead. The interior of a mill was full of interest from floor to floor, with the rush of the wind heard through the commotion it set up in the machinery. Its essentially practical construction presents an instance of the great beauty which this limitation yet includes. Quite unconscious of it themselves, these old mill builders gave us delight as well. Windmills have for years now been gradually disappearing, though sometimes left to linger in a dismantled state, their sails gone, or pulled down altogether. As a correspondent remarks in the *Observer*, "Windmills are worth preserving for their artistic influence on otherwise undistinguished landscapes, and as survivals of mediæval conditions and of a vanished handicraft of wonderful skill. England might do worse than start a movement for their preservation, for they are rapidly disappearing."

All Saints' Church, Ealing. In order to facilitate the traffic at this spot, the road in front of All Saints' Church is being widened, which entails the moving of the surrounding stone wall—designed by the architect of the church, the late Sir Gilbert Scott—some yards farther back. This has also entailed the cutting down of the fine old elms that bordered the churchyard, and were such a pleasant feature of the locality. The wall which surrounds the churchyard is a comparatively low one, designed with some character, no doubt by the architect of the church, and we are glad to observe that it is being replaced in its new position without alteration of its features—but not quite so. The ridge of the wall is gable shaped, and in order to prevent people from sitting on it a most forbidding and aggressive iron spike bristles all along the ridge, so enclosing the precincts with an armour, rather contradicting the welcome which the gentler spirit of religion suggests. We think of the precincts of some of the French Cathedrals with the ancient stonework worn away by generation after generation of those who have loitered and gossiped and rested, and found a welcome in so doing; and there also occur to us those instances in our own land, churchyards in England where an ancient stone tomb here and there is marked and worn by those who have leaned against them, and felt at ease and at home on summer evenings in doing so. We wonder whether these preventive respectabilities of suburban ecclesiasticism are as conducive to the love of the church as that more human and democratic spirit which is less concerned with correct behaviour than human relationships. Architecturally, it may be said, in passing, the iron spikes wholly destroy the otherwise agreeable character of the wall, and we very much hope that the matter will be reconsidered.



House at Hampstead: Hall.
Mr. T. J. Rushton, Lic.R.I.B.A., Architect.

Motor Transport. It may appear agreeable to some that in the industrialisation of England the countryside is not of much account—and that the penetrating of rural districts with the stark efficiency of motor tracks, in order to facilitate transport and the enjoyment of the motorist, is all to the good—though it depends on what good we seek! At the same time, it is scarcely to promote the enjoyment of rural districts to take from the roads all the unexpected undulations, features and varieties of interest which held one's interest and made the way so dear. All those associations—the hedgerow, bank, or clump of trees, filled with associations so accordant with the human spirit—made a romance of the open road. We have passed recently through country roads well known to us, to which attached all those moving associations of which we speak, to see them replaced and obliterated by an efficiency which takes note of nothing but its own particular purpose, and leaves wholly out of account the romance and traditions which were once so great a part of the pleasure of passing through them. Whether this new efficiency will always seem to include all that is worth having, or seem to be blotting most of it out, time will show, but it will then be too late to restore them. What the nation fought for was hardly to see its ancient heritage laid waste by a mechanical efficiency relentless towards the soul of a country through which it perceives the best things in its pursuit of immediate interests.

Ancient Monuments Society. We give on another page some particulars of the Easter visit of the Ancient Monuments Society to North Wales, and we are glad to call attention to the fact that these arrangements are for the benefit of the public generally, and not limited to the members of the Society. The Council feel that in this work they are rendering a public service in the cause of the preservation of ancient monuments, and they sincerely hope that their efforts will be supported. Anyone may join by sending his or her name and address to Mr. Wardman, in accordance with the notice.

GENERAL NEWS

Professional Announcement.

Mr. W. S. May, F.S.I., has removed to 9, New-square, Lincoln's Inn Fields, London, W.C. 2. Telephone: Holborn 4949.

The Architectural Association.

The annual ball of the Architectural Association, a May Day revel, will be held in the galleries of the Royal Institute of British Architects, 9, Conduit-street, W.1, on May 1. Fancy dress will be worn, and there will be dancing and revelling from 9.30 p.m. to 5 a.m., to the music of the Spider's Band. Tickets, including refreshments, price 21s. each, can be obtained from Mr. F. R. Yerbury, The Architectural Association, 34-35, Bedford-square, W.C.1, and Mr. E. J. Haynes, R.I.B.A., 9, Conduit-street, W.1.

Liverpool Cathedral.

A start will be made this summer with the building of the great central space of Liverpool Cathedral. Sir Frederick Radcliffe, chairman of the Cathedral Committee, recently stated that architect's plans are so far advanced that the committee can see their way to begin excavating and filling in the foundation. It will be necessary to go down some 50 ft. to the solid rock on the cemetery side, but on the St. James's-road side the rock crops out near the surface. When the rock has been reached the foundation will be sunk in a bed of concrete.

Leighton House.

The Kensington Borough Council recently resolved to accept the offer made to them to take over and maintain Leighton House as a centre of art, music and literature for the borough.

Ancient Monuments Society.

An Easter meeting in North Wales was arranged by the Ancient Monuments Society in North Wales, and synchronised with the latter part of the meetings of the Classical Association at Bangor. On Easter Friday, April 17, motor coaches, starting from Llandudno and collecting visitors there and at Llandudno Junction, conveyed the party to a series of ancient monuments and historic buildings in the Conway Valley and on the Denbighshire moorlands. On this occasion, Mr. H. Harold Hughes, F.S.A., A.R.I.B.A., of Bangor, Mr. W. Bezant Lowe, M.A., F.C.S., of Llanfairfechan, and Mr. Willoughby Gardner, F.S.A., kindly consented to act as leaders. On Easter Saturday, April 18, a public meeting was held, at 11 a.m., in the Powis Hall, of the University College of North Wales, at Bangor, when the Principal, Sir Harry R. Reichel, M.A., LL.D., presided. The Most Rev. and Right Hon. Dr. A. G. Edwards, D.D., the Archbishop of Wales, spoke on "The Virtue and Benefit of Preserving Ancient Monuments"; and Professor J. E. Lloyd, M.A., D.Litt., F.S.A., of Bangor, the historian of Wales, on "Our Heritage and the Dangers which Beset it." In the afternoon, Beaumaris Castle was visited under the leadership of Mr. H. Harold Hughes, F.S.A., A.R.I.B.A.

The National Gallery.

A portrait of Rembrandt by his pupil, Govert Flinck, has been added to the National Gallery. The picture is signed, and dated 1639, some three years after Flinck had left Rembrandt's studio. Rembrandt is thus represented in his 34th year—one year younger than in his "Self Portrait," also in the National Gallery (No. 672), dated 1640. Both pictures hang in Room X.

Durham Magistracy.

Mr. James Palliser, of Philadelphia, architect and building manager to the Lambton & Hetton Collieries, Ltd., has been appointed a justice of the peace for Durham. He has been with the company 33 years, and was previously with Messrs. R. Hudson & Sons, builders and contractors, of Sunderland, as manager.

CORRESPONDENCE

[While we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

Steel Houses and Lightning Conductors.

SIR,—Having had considerable experience with the subject of "Protection from lightning" in the tropics as well as in the British Isles, I venture to pass an opinion on the building of steel houses. In accordance with the by-laws, all houses must be built upon a damp-proof course, which, of course, insulates them from earth.

A steel house (or a lightning rod) in imperfect connection with the earth, due either to insufficient surface of conductor buried in the ground, or to defective joints, is generally regarded as a source of danger, inasmuch as the sudden and disruptive discharge would be liable to fuse or scatter some portion of the conductor in its passage. Again, the resistance offered at the defective portions of the conductor may cause a portion of the discharge to seek another path disruptively through the building.

As everyone knows, a thunder-cloud is a mass of vapour charged with electricity at a pressure or potential differing considerably from that of the land, or of the clouds near it. A thunder-cloud acts by induction on the land beneath, or on the cloud near it, and tends to draw a charge of electricity of opposite kind to that part of their surface nearest to itself. The land, or neighbouring clouds, reacts upon the thunder-cloud in a similar way, thereby forming a huge electrical condenser.

When the difference of electrical pressure between the oppositely electrified cloud and earth is sufficiently great, an electric discharge of a disruptive nature with consequent disengagement of heat takes place across the air space which separates them. Damage to buildings—especially steel buildings—may arise from either the disruptive violence or the heating effect of the discharge.

"Impedance" being the name given to that which tends to hinder the passage of a discharge, good conductors (metals) offer less impedance than inferior conductors, such as brickwork, concrete, &c.; thus in its passage to earth, a discharge passing by a path composed of good conductors will not leave this path for one composed of very inferior conductors.

Objects, especially metal, which project above the general level, inasmuch as they generally offer far less impedance than the alternative path through air, are most liable to be struck. Metals are the best conductors of electricity, and hence will offer the smallest impedance. But the danger lies at the point of the damp-proof course in steel houses.

W. F. KENNELLY,
Ealing, W.5. Clerk of Works.

OBITUARY

Adelaide Hallward.

As artist and author, Adelaide Hallward, the announcement of whose death appeared recently in the *Times*, was distinguished not only through her book illustration and writings, but also for her work in church embroidery, the banners, hangings, altar frontals, etc., executed by her for different churches in the country being marked by a beauty wrought with almost mediæval appreciation while bringing her own independent approach, little influenced outside of her own intimate sense of beauty. She co-operated actively in many of the churches decorated by her husband and also in stained-glass work, while her influence gave direction to many others. She held, in fact, a reputation as an artist and writer among a cultivated but limited circle rarely bestowed. Her great-grandfather, Admiral Lock, and her grandfather, Captain Lock, both fought in the Napoleonic wars, while on her father's side she was related to Mathew Bloxam, the historian of Gothic architecture. Adelaide Bloxam first came into public notice through her stories and illustrations for "The Child's Pictorial" (S.P.C.K.), notable for the beauty of their feeling and a delightful humour. Some of these illustrated stories were afterwards republished in collected form under the title "The Days of the Rose" (S.P.C.K.). A later volume containing much of her best illustration, "The Babies' Quest," was published later, and it is perhaps the best example of that moving tenderness and beauty and devotion to children which suffused her life no less than her work. Her work in embroidery, in pottery decoration and design (examples of her pottery decoration were exhibited in the Victoria and Albert Museum), incorporated the beauty we associate with mediæval work, so certain was her instinct for craftsmanship. A much-admired altar frontal was executed by her for the Lady Chapel of Rochester Cathedral. Some of her best work was also seen at arts and crafts exhibitions in London. She left completed in manuscript a volume on which she had spent many years, which it was her wish should not be published until after her death. It is proposed to hold a small exhibition in London later of her collected work.

Mr. George Soudon Bridgman.

The death occurred recently, at his residence, Borough, Courtland-road, Paignton, of Mr. George Soudon Bridgman, at the age of 86. Born at Torquay in 1839, he commenced his career as an articled pupil to Mr. John T. Harvey. After spending a few years in London for the purpose of gaining experience, Mr. Bridgman returned to Torquay and commenced to practise as an architect and surveyor in Fleet-street. Among his first work was the designing of the Torbay Hotel. The development of Paignton, with which Mr. Bridgman was so closely identified, began in the year 1866. He served twice as vice-president of the Society of Architects, which organisation he represented at important conferences in America and elsewhere.

The death has taken place at the age of 62 of Mr. Arthur Owen Evans, architect, formerly of Pontypridd, and lately of Dale Fort, Pembrokeshire. He was one of the leading arbitrators in building trade disputes in Wales and was the building surveyor to a large number of South Wales estates.

COMPETITION NEWS

Ashford Assembly Rooms.

Designs are invited by the Ashford Urban District Council for the conversion of this building. Premium, £50. Sending-in day, May 15. (Banned by the R.I.B.A.)

Gravesend.

Members of the Royal Institute of British Architects are requested not to take part in the competition for a new Diphtheria Block, for the Gravesend Town Council, because the conditions are not in accordance with the Regulations.

Other Competitions.

Other competitions still open include the following (the dates given are, first the sending-in date, and second the issue of *The Builder* in which full particulars were given):—Industrial Designs (June 25; Dec. 26). Valetta Lay-out (June 30; Jan. 2). Constantine College (May 15; Jan. 23). Copenhagen Bridge (Sept. 1; Feb. 20). Norwich Extension (July 1; March 20). Dundee Secondary School (April 18; March 13). Belfast Library (June 4; March 27). Essays on Art and Commerce (Aug. 31; April 3). Pontlottyn Church (no sending-in date; April 10)—banned by the R.I.B.A. Ramsgate Lay-out (April 27; April 10). Canadian War Memorial (June 11; April 10). Argentine Institute (Dec. 31; April 3).

War Memorial Cross at Croston.

Mr. Herbert Langman, F.R.I.B.A., Architect.

STREET ARCHITECTURE

By V. M. CHRISTY.

BELGRAVE-ROAD, S.W.

The long—apparently interminable—straight line of Belgrave-road stretches from Buckingham Palace-road southwards until it merges into St. George's-square, which is cut off sharp by Grosvenor-road, another long stretch of road, almost straight at this part. The whole impression of Belgrave-road is of long, straight lines, and where they are not really long they are nearly always straight. There come rare curves, or lines not at right angles, which only serve to emphasise the uprightness of the rest. The occasional breaks in the uniform continuity of the façades only make them appear more uniform. The point at which a trio of curved angle houses make their appearance is a pleasant break, and rules out any fear of monotony; but one of its functions is to serve as a new jumping-off place for a fresh stretch of rectangular lines. The light pencilling of trees peeping out of the gardens in the squares which the street traverses are no more a negation of the rigid rectitude of the street than is a garland a contradiction to the straight lines of the classic temple upon which it hangs. On closer examination one notes with interest in how many different ways the enhancing curve is employed here. But it is always in subsidiary and seldom in structural positions.

There are slender curved iron rails and rods for supporting awnings; there are occasional rounded window pediments; there are curves on the screens between the balconies; there is sometimes a low curved vase to surmount the parapet over the porch. Then, too, the parapet itself is sometimes pierced with many curves in the design, instead of the more common balusters. Balusters, where they occur, although possessing double curves individually, yet have so pronounced a vertical tendency in their general appearance and function that the existence of their curves is almost unperceived. Among the smaller curved features in the street there is even a dome to be seen, but that essentially curved feature follows the example of the other curves, and serves chiefly as an additional "underlining" of the horizontality of the street.

The individual groups of buildings are given variety by the introduction of shutters here, of pedimented windows there, of slight variations in the skyline yonder. But the whole length of the street has a dignity and smartness in its general tendency to uniformity which is somehow lacking in the curls and topknots which meet the eye when Buckingham Palace-road is reached. The contrast is very marked.

Belgrave-road is especially interesting as being one of those London streets whose function has but recently been definitely and perceptibly changing. Before the War it was still almost exclusively a "well-to-do residential street, serving the purpose for which the substantial houses here and in the adjacent streets were obviously originally intended. But even at that time the surrounding neighbourhood was hardly in harmony with so eminently an "upper middle-class" street, and it was equally easy to refer to the vicinity as "Belgravia," which sounded well, or as the "slums of Westminster," which did not. It would seem as though those responsible for the erection of those slightly pompous lines of comfortable-looking houses were a trifle blind to the facts concerning the rise and fall of residential neighbourhoods. Doubtless for some long time after the days when Vauxhall was the resort of fashionable society Belgravia held its head high. But soon the Georgian and "Queen Anne" terrace houses in the adjoining streets became dishevelled, neglected, and deserted by their original well-dressed occupants, who found houses more to their taste in parts of London which were then becoming newly "fashionable." The slow decay of the Belgrave-road district set in. But evidently before the symptoms were really conspicuously developed the Belgrave-road houses had come into being, and they and their fellows in the squares are only just awakening to the fact that they have been left high and dry by the retreating tide, or perhaps it would be more descriptive of their condition to say that they have just discovered they have been affected themselves by the contagion which doomed their near neighbours. During the War some of the houses in Belgrave-road were taken over for Government purposes; their occupants moved to the outskirts of London or right into the country, and the knell of Belgravia really began to sound. Various societies, clubs and philanthropic institutions acquired premises in Belgrave-road for office and other purposes. Business firms of different kinds found accommodation here, too, and gradually this road and the squares which it links together (like a river widening here and there into lakes along its course) were shorn of their former dignities.

The manner in which they are adapting themselves to new conditions resembles that dignified and becoming efficiency with which men and women of real "quality" adapt themselves to changed circumstances, adopting with whole-hearted thoroughness a trade or an occupation which they would formerly have regarded as beneath them. Changing circumstances test the worth of men and women; the same is to some extent true of the buildings they erect. Belgrave-road was designed to produce an effect of harmonious continuity and solid dignity, and it bids fair to maintain that effect even in the changing circumstances through which it is passing to-day.

House at Hampstead.

Mr. T. J. Rushton, Lic.R.I.B.A., Architect. (*See p.* 596.)

Compulsory Town Planning.

The following is a list of local authorities upon whom town-planning is compulsory that have passed resolutions deciding to prepare town-planning schemes during the quarter ended March 31 :—

Durham—South Shields Town Council; Gloucestershire—Bristol Town Council (second scheme); Lancashire—Darwen Town Council; Yorks, W.R.—Leeds Town Council (fourth scheme); Cheshire—Hale Urban District Council, Marple Urban District Council, Wirral Rural District Council; Kent—Sidcup Urban District Council; Lancashire—Litherland Urban District Council; Middlesex—Hayes Urban District Council; Sussex—Steyning West Rural District Council; Yorks., W.R.—Saddleworth Urban District Council; and Wales—Penarth Urban District Council.

The following preliminary statements have been approved by the Minister of Health for the quarter ended 31st March :—

Cleethorpes Urban District Council (Scheme No. 2); London County Council; Seaton Delaval Urban District Council; Southend-on-Sea Town Council; Thornton Urban District Council; Torquay Town Council; and Wrexham Town Council.

NOTTINGHAM AND DERBY ARCHITECTURAL SOCIETY

SCULPTURE IN ARCHITECTURE.

A GENERAL meeting of the Nottingham and Derby Architectural Society was held on March 31, at the rooms of the Society in Nottingham. The president (Mr. E. H. Heazell) occupied the chair.

After the ordinary business of the meeting a paper was read by Mr. Jos. Else, R.B.A. (Principal of the Nottingham School of Art), entitled "Sculpture in Relation to Architecture."

In the course of his address, the lecturer said architectural sculpture should, in the broader sense, always be built into architecture, and the more character it absorbed from its architectural environment the better it became. If they considered the best periods of architectural sculpture, they were impressed with this integral function of sculpture—its oneness with the building it adorned. The Assyrian, the Egyptian, the Grecian, and the Gothic periods were each in this way perfectly architectonic. Each combined with and maintained the character of its architectural setting.

The Assyrian sculptors seldom ventured into work in the round. In relief work, however, they were perhaps the greatest architectural sculptors the world had known, replete with life and energy, their work showing a thorough knowledge of the necessity for the preservation of wall face. This knowledge was evidenced in all the best periods of architectural decoration. They decorated architecture without destroying it. The Egyptian, that great master of impressive scale, used sculpture with a full realisation of both its religious and æsthetic value, although never with the same close architectural affinity as the Assyrian or the Greek. He certainly felt the importance of scale, the dignity of great stones, and that grandeur and serenity of pose so essential to religious architectural sculpture. One form of sculptural treatment peculiar to the Egyptian was the sunk-relief, a pleasing and interesting form of decoration, but open to the objection (if largely used) of destroying the wall-face constructionally.

In Greek sculpture was reached perfection of form, intense with æsthetic appeal, and generally faultless in its architectural application. The Romans were very lavish with sculpture. Its quality was never equal to the Greek, but still it was rich and impressive, and was applied ruthlessly to architecture. Rome did not use her sculptors for the same ideals as did the Greeks. It was not gods and goddesses embodying lofty ideals, but the development of Imperial Rome as an Empire. With the removal of the empire to Byzantium and the changed religious outlook the palmy days for the sculptor were over. No longer was sculpture used for magnificence of empire. No longer was physical beauty its ideal, but rather the crucifixion of the body and an intensely religious purpose. The period following that great change was known as the "dark ages," and obtained up to the Renaissance. It was, however, anything but a dark age insofar as it affected architectural sculpture, since through the Byzantine and Romanesque the Gothic sculpture developed its greatest claims to architectural homogeneity Gothic art was, generally speaking, the art of the draped figure. The prejudice of the ages and the nature of a religious outlook which preached the suppression of the body, as opposed to the Greek glorification of it, led to the emaciation of form and an amplification of drapery which pervaded it as a whole. Yet in an architectural sense Gothic sculpture was perhaps more closely allied to architecture than any of its predecessors. It was the French architects and sculptors of the twelfth century who taught the world what architecture and sculpture could be when moved by a common impulse.

In briefly mentioning the great ages of architectural sculpture he omitted the spacious days of the 14th and 15th centuries, known as the Italian Renaissance, when architecture, sculpture and painting were enjoying a patronage unmatched in history. He had omitted that purposely, not from any lack of appreciation of the wonderful works produced during that period, but from the fact that while the three arts accomplished so much, they never functioned with the singleness of purpose which characterised the Gothic art, and while sculpture was constantly applied to buildings it never became inseparable. He did not yield to anyone in his admiration of Michael Angelo's great figures on the Medici Tomb, but it was a sculptor's appreciation of sculpture in the detached sense, and not in its architectural application. With increased technical skill and facile handling came the desire to assert sculpture as a separate artistic entity and realism (which was the sole aim of so much modern work), and it became from this fact alone divorced from the architecture it was supposed to adorn. There was a loss of the sense of stone, and sculpture became an exhibition of the skill and dexterity of the sculptor.

Appropriate sculpture properly applied would enhance good architecture, and poor or misapplied sculpture would certainly bring æsthetic ruin upon an otherwise good building. That opened the controversial ground of what was poor or misapplied sculpture, and the architect and sculptor were able to show each other how difficult a thing was collaboration. To collaborate successfully a certain similarity of outlook was necessary, and the applied sculpture must ever be in the spirit of the building. The architect who sought to redeem the otherwise unattractive face of his building by the use of sculpture was courting disaster, while the sculptor who regarded the building as a mere background for the setting of his work was deserving of the crushing which he would undoubtedly receive at the hands of the architect.

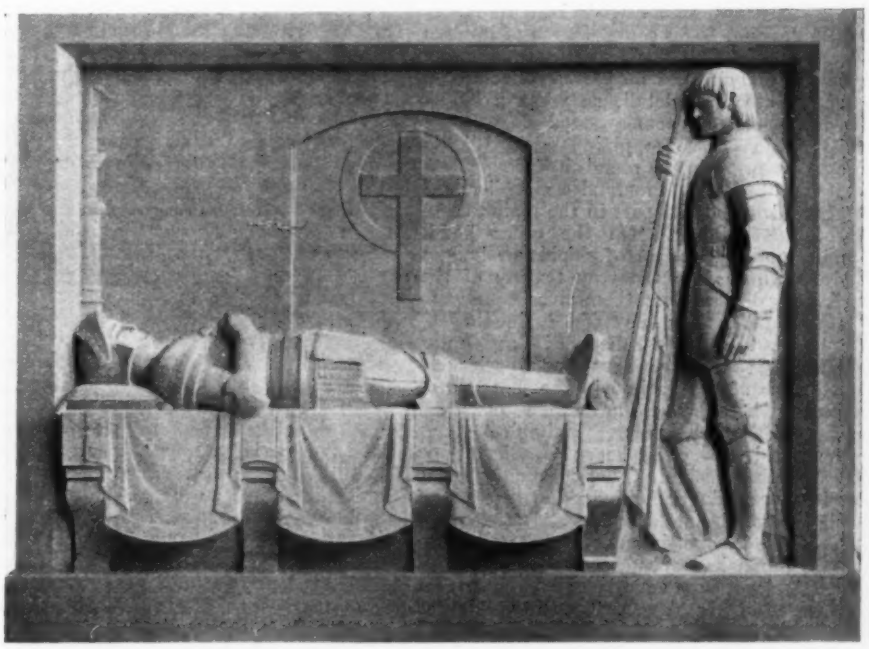
A matter about which much misunderstanding existed was the tilting of figures and their elongation to correct perspective views. The tilting forward of figures to allow a possible view under the very walls of the building was fundamentally wrong. Obviously the vertical face of the wall gave the lie to the pose of the figure, which in any case would appear unstable from the longer views, and it was those longer views which again frustrated any effort in elongation to defeat the natural principles of optics. It should always be remembered that naturally possible proportions would look possible from whatever viewpoint might be selected. On the subject of sculptured ornament there was little to be said. Like all ornament it should be used with discretion, and never obscure construction. Carving should always be examined to see if that effective piece of ornament owed any of its strength to colour cleverly applied in its undercutting; the fact that those old tricks were still practised argued that they did succeed sometimes. Marble should be treated in the manner of the Italians, but freer stone should always be cut briskly showing plenty of arris and tooling. Marble was quite unsuitable for outdoor work in this climate.

In conclusion, he suggested that the young architect should find some time to give to this branch of his profession; more consideration given to the proper use of good sculpture would make collaboration between architect and sculptor much easier. The architect was the master mind in building, and he should not risk marring his work by inattention to what was often its crowning feature.

On the motion of Mr. H. A. Dickman, seconded by Mr. A. E. Heazell, a hearty vote of thanks was accorded the lecturer, and Messrs. H. G. Watkins, E. R. Sutton, C. W. F. Haseldine and others took part in a discussion.

AN AMERICAN WAR MEMORIAL

John Gregory is a young English sculptor educated in London but now living in America and working as a modeller of fine classical garden figures. His latest work, however, takes a different form, but retains the same traditional restraint. The subject is romantic—the lament of Ector for the death of his brother Lancelot, from Malory's "Morte d'Arthur." It is 7 ft. by 9 ft., in Caen stone, and is being erected at the Corcoran Art Gallery, Washington, in memory of a grandson of the founder, William Corcoran Eustis, who died in the war as a captain in the infantry. This type of memorial, representing a mediæval knight instead of a modern soldier, is very much in vogue in America.



An American War Memorial.

ARCHITECTURE AND HERALDRY

The first of a series of lectures on craftsmanship, entitled "Heraldry and Architecture," was recently given by Mr. Walter H. Godfrey, F.S.A., in the hall of the Royal Institute of British Architects. In the course of his remarks the lecturer said students of heraldry knew, of course, that nine-tenths of the camouflage with which the eighteenth and nineteenth-century heralds surrounded their art had no justification—and indeed no serious precedent—and tended only to degrade it and to bring it into derision. The jargon of the later heralds was as alien to heraldry as the appalling efforts of the nineteenth-century commercial draughtsmen who attempted to work in a field for which they were entirely unfitted. The leopards of England were not only obscured under the misleading description of "lions passant guardant," but were drawn to imitate the once fashionable French poodles which never could be trained to fulfil their heraldic functions—that was to fill and decorate a shield. The charges on new shields of arms granted by the Heralds' College were as complicated and utterly unsuited for heraldic presentation as it was possible to make them, and were described in terms which exactly matched the sententious rubbish of the design. When they read Froissart or walked the aisles of Westminster Abbey they met things clear and gay, shaped as they were named with all the consummate skill of a classic simplicity.

Heraldry was the poetry of an age that in the sober, practical task of building overcame all the great constructional difficulties that it encountered, and turned stone and timber alike into a fairyland of art. Try as they would, they could not fathom the miracle of the Middle Ages, for it was beyond their powers to comprehend that wonderful conspiracy of high and low alike to spend themselves in devising and perfecting an endless succession of things of sheer beauty. They were little enough aware of the potent influence that this tradition of mediæval craftsmanship must still exert upon their modern neo-classical times. There was one pre-eminently important fact for the artist and craftsman that emerged from a study of the early practice of heraldry, and that was that they had every right to the freedom, in design and treatment, enjoyed by those who worked in the heyday of this wonderful art.

One of the great advantages of heraldry, considered as architectural ornament, was its adaptability. It could be made as aloof or as intimate as the designer wished in his architectural scheme. The completeness of its own apparatus allowed it to be used as a separate or applied feature with no particular reference to the architectural detail, as when a boldly carved heraldic achievement stood alone in the centre of an otherwise plain wall. Like a piece of sculpture in the round, it had sufficient architectural quality to stand as an isolated feature and to take its part in the main grouping of the building. On the other hand, heraldic motives, groups of shields or badges could be woven into the very texture of the architecture. They lent themselves equally to all styles and modes; they added piquancy to ornament but need never disturb its rhythm or repose. This adaptable character was largely the outcome of the variety in the methods of presenting heraldry. The shield of arms itself was, as they knew, the simplest thing in the world, and could be as conspicuous or modest as they desired. They need not wonder that in present-day conditions the majority of people regarded heraldry as dead, that they showed little interest in one of the most human arts that man had ever conceived in a joyous hour. And yet how easy it was to show that the essence of heraldry was as alive to-day as ever it was! The mystery was that men and women had lost touch with the means of expression of emotions which they nevertheless felt as readily as ever their ancestors did. In heraldry they had a clear example of the danger which attended the imprisonment of any form within fixed barriers to the discouragement of a natural development.

There was another wide field for the application of the heraldic idea at the present time, and it was allied in a curiously close manner with the occasion for the beginning of heraldry. In recent years, and especially during the late war, they must all have been impressed by the enormous number of emblems connected with the fighting services, the Navy, Army and Air Force. There were the crests and badges of warships of all classes, and of the regiments of the Regular Army and of Territorial and Yeomanry units. There were the badges of rank of the three services, and numerous symbols marking various duties assigned to individuals. There were wound stripes, service chevrons and oak-leaves for mention in despatches, also a great number of divisional signs, and badges for separate expeditions, army corps, etc. The regimental colours and the parti-coloured ribbons of medals for campaigns and acts of gallantry formed another large group of military emblems. In these innumerable bits of ribbon, metal and gold lace, they had a mass of heraldic material, which seemed to him to prove the persistence of this sign language even in days when the world was supposed to have left behind it its first childhood. But were they not largely neglecting all this opportunity?

In conclusion the lecturer said in a careful study of this and kindred subjects he was more than ever convinced that each one of the various schools of art, and styles of architecture, enshrined a veritable discovery, or if they would, recreative principle separate from the rest. That was to say that each style constituted a mode, a harmony of treatment, which was complete and independent in itself and formed a definite contribution to the æsthetic capital of mankind. But he also felt just as certainly that there were some qualities, even some forms, that transcended the boundaries of style and might be common to them all. How often one saw in the crisp and clean-cut carving of some of their thirteenth-century capitals a reflection of an almost Hellenic quality, and even in the best mediæval figure sculpture some such subtle relationship had been recognised by their critical writers.

WOOD CARVING

The piece of carving illustrated on this page is a specimen of the work of Mr. James Walker, in the Grinling Gibbons' manner, and shows that present-day craftsmen are able when required to turn out work of a high standard. This type of decoration when used judiciously is very decorative, and it has been used in several recent buildings, notably at the Port of London building and Messrs. Spiller's premises, St. Mary-axe, of which Sir Edwin Cooper was the architect. It was also used by Messrs. Greenaway & Newberry in the Auctioneers' and Estate Agents' new offices in Lincoln's Inn Fields.

Victoria and Albert Museum.

The Victoria and Albert Museum has recently acquired an Italian marionette theatre of the first half of the eighteenth century, brought from a palace in Venice. This has now been erected in Room 5 of the woodwork galleries. The theatre is an imposing structure of architectural design, 13 ft. high, carved, painted and gilt with an armorial shield, festoons and other ornament. Two scenes can be shown: one, the interior of a salon, with figures dressed in the costume of the period and appropriate furniture; the other scene shows a view of St. Mark's-square with figures from the Italian Comedy. The faces of the marionettes are carved with great skill and expression, and the costumes, many of which are richly embroidered, are extremely varied and elaborate.

Wood Carving.
By Mr. James Walker.

EXHIBITION NOTE

PEN, PENCIL AND PASTEL SKETCHES AT THE R.I.B.A.

The pen, pencil and pastel sketches from the countryside, by Mr. T. Raffles Davison, Hon. A.R.I.B.A., now on view at the galleries of the Royal Institute of British Architects, will make a special appeal to readers of this journal, as probably no artist is better known to the architectural profession than Mr. Davison. His work as an architectural draughtsman must be familiar to almost all architects who have been in practice during the last forty-five years, and the charm and quality of his drawings will be generally admitted, as will the fact that there is no decline in that quality in his recent work. Mr. Davison's output has been amazing—the present exhibition of some thousand sketches and drawings include but a small part of his work, while it can be said without hesitation that no one has ever had accepted by the Royal Academy so many drawings of modern architectural work.

As the artist himself says in the introduction to the catalogue of the exhibits, "The sketches which are here exhibited represent the activities of a lifetime, though they are only a small part of the whole. Most of them have been done for the pleasure of the occupation, and the attempt to reflect in the pages of the *British Architect* for some forty years examples of old and new work which, it was hoped, would interest the public. They have been the means of bringing their author into many happy associations with people and places, probably more than ten times this number have appeared periodically in the press, and it was thought that a representative collection might be exhibited to afford some interest to a public who would not otherwise know much of their extent or character."

The present exhibition includes about eighty sheets of interesting sketches of architectural detail, such as doorways, pulpits, windows, fonts, chairs, misericordes, &c., churches and church towers, houses, and a great variety of suggestive sketches of parts which are always interesting when carefully sketched and accurately drawn. Mr. Davison's draughtsmanship is characterised by great accuracy of detail and proportion; this and the inherent charm of his handling, give his work an interest which more fashionable drawing often lacks. In addition to the sketches are the fine drawings by the artist of Sir G. Gilbert Scott's Liverpool Cathedral (exterior as finished and interior), lent by *The Builder*; suggestions for a war memorial bridge at Charing Cross; and drawings of London, lent by Viscount Leverhulme, Hon.F.R.I.B.A. Many of these drawings and sketches have been published, but none of the collection of sixty pastel drawings, most of which show the artist in his happiest mood, has been exhibited or published previously, and will probably come as a revelation of the artist's capabilities, even to his friends. Some of the drawings made in the island of Lewis, the Cotswolds, and elsewhere, are vivid and yet faithful impressions of our beautiful countryside, and cannot fail to impart pleasure to all lovers of English scenery.

We give in this issue two or three sketches taken from the exhibition, which was opened on Wednesday by Mr. H. M. Fletcher.

THE R.I.B.A.

We take the following notes from the Minutes of the Council meeting held on March 30:—

School of Architecture, Sydney.—The Council, on the recommendation of the Board of Architectural Education, decided to recognise for exemption from the R.I.B.A. intermediate and final examinations, with the exception of the portion relating to professional practice, and subject to certain other conditions, the following architectural school: The School of Architecture, The University of Sydney.

R.I.B.A. Examinations.—It was decided to add to the examiners in professional practice the name of Mr. John Keppie, A.R.S.A., as a Scottish representative, so as to facilitate the taking of this examination by the Scottish candidates.

Wages' Slips on Tenders.—On the recommendation of the Architects' and Builders' Consultation Board, it was decided to continue for a further twelve months, from March 25, 1925, the arrangement made in 1924 between the R.I.B.A. and the National Federation of Building Trades' Employers regarding the placing on tenders of a slip providing for adjustments to be made in the event of a rise or fall in wages.

International Town-Planning Federation, New York.—It was decided to invite Professor Beresford Pite to act as the official representative of the R.I.B.A. at this Conference.

Transfer to Retired Fellowship.—Mr. Maurice B. Adams, who was elected an Associate of the R.I.B.A. in 1876 and a Fellow in 1886, was transferred to the list of Retired Fellows.

Reinstatement.—Mr. Wray W. Wheston was reinstated as Licentiate.

THE ARCHITECTURE OF THE POST-WAR FRENCH CHURCHES

(From a Correspondent.)

The rebuilding of the churches that were completely wrecked or seriously injured during the war in the devastated regions of France presents a number of interesting architectural problems. In order to secure the best results, all the plans prepared have been considered by recognised experts, whose impartiality and knowledge have given to their decisions an undisputed authority. At the Ministry of Fine Arts, one of the French Government departments that possesses far more executive power than our Commission of Fine Arts, there has been sitting for the last five years a Board that examines plans for the rebuilding of churches, and the Consultative Committees that consider all plans are composed partly of architectural experts and partly of those who have special experience in religious art. Then at Paris there is a central office and a committee to which appeals can be made. The ideal of these Committees is that all these churches, even if they are inexpensively built owing to the shortage of funds, should, at any rate, in every case be as architecturally satisfactory as possible. There are, of course, many difficulties. Many of the operatives in France are well qualified to build a cottage, but do not possess the craftsman's skill needed for ecclesiastical work. Then materials are scarce. With ten large Departments devastated, covering an area as large as the whole of Lancashire, Yorkshire, Lincolnshire and several other British counties, with factories systematically destroyed by the Germans, it is little wonder that the supply of materials has proved to be a problem. Such difficulties have, however, resulted in one interesting development. A number of architects have found it necessary to become their own master builder, "Maitre de l'Œuvre." In applying their wits to the various problems that arise daily, obstacles have been overcome, and to-day in the one Department alone of the Pas-de-Calais, where 200 religious buildings were destroyed, the work of reconstruction is almost completed in more than 65.

There are in all the war areas in France nearly 400 churches either completed or in course of construction, and the loan of 200 million francs that was floated to meet the expenses was raised in five days.

The Committees have weeded out any grotesque schemes ensuring that there should be a religious character to the buildings suitable to the site and in harmony with the liturgy and symbolism of the church. Although the most economical forms of construction have had to be adopted, the Committees have refused to approve the employment of imitation sculpture or false ornamentation, believing that ecclesiastical buildings must not depend upon substitute materials and misleading decoration. It is recognised that even a village church built with the minimum of funds may be beautiful because of the simplicity of its lines.

Those who go to France this summer will return full of admiration for the courage in which these diocesan Committees have set to work. The experience gained in the reconstruction of the 400 churches will prove of great value in completing the task of rebuilding the 2,000 churches.

COLOURED CARVING IN WOOD AND STONE

Mr. Laurence Turner recently delivered the second lecture (Architecture and Craft series) on this subject at the Rooms of the Royal Institute of British Architects, 9, Conduit-street. In the course of his remarks Mr. Turner said some people considered that painting carving was analogous to painting the lily. He, however, used it in combination with carving as often as he could, although good carving did not necessarily need the addition of colour to enhance its beauty. Colour was constantly used in moulding as a foil or contrast to plain moulding The introduction of colour in architectural ornament was held by some people to be as improper as it was considered a few years ago for a woman to ride astride. There was, however, a limit in the use of colour which prudence called on them to respect; some modern painted furniture produced an uncomfortable sensation. It was to be hoped that these fashions would not last. Many people had no taste but were attracted by much which consisted not of artistic but merely easy effects. It was to be hoped that it was only a passing phase, and that out of it something would be born more healthy and more interesting. Most of them had seen the effect produced by colour applied to churches in various counties in England

The lecturer then showed a series of interesting slides; one of a small reredos at Munich showing the combination of relief and flat surfaces. In South Kensington Museum there was, he said, a set of carving which retained its original colour although to a certain extent it had worn off. The early ceilings in wood of churches and domestic houses were often painted and they could be certain that ceilings were decorated by the perusal of old illuminated manuscripts. Modern plaster work was often coloured; and from John Evelyn's diary they knew such work was often highly decorated.

Another striking instance of painted carving was the carving of ships. The stern of a ship of 1695 was shown sumptuously carved. Not only were the sides and sterns decorated, but also the fittings on deck: all part of a decoration which went to make a beautiful whole.

The alabaster carvers of Nottingham in the reign of King Henry VIII set an example in original carving.

In all colour decoration it was important to consider where the work had to be put. It was difficult to get a collection of work together because most of it was fixed to buildings. As to the method of painting carved wood, it should first be well glass-papered, particularly if to be seen near the eye. In conclusion, the lecturer said painted carved wood should be treated as a precious thing. He considered that many of their buildings devoid of colour would be greatly improved if some were added.

Seconding the vote of thanks, proposed by the chairman, Mr. Voysey said he had been very interested in the sound views of Mr. Turner. He had held for many years that sculpture was not complete without colour. Carving could be as delightful as sculpture. Nature never produced form without colour. Why should man? Want of colour arrived at its climax during the war, when mud and khaki were the order of the day. Perhaps they were now recovering from that living death; he hoped for more colour in everything.

The lecturer in a brief response said he was indebted to those who had allowed him to exhibit their work in carving at the rooms of the R.I.B.A. that afternoon. Particularly to Mr. Aumonier for his exact reproduction of a chair from the tomb of Tutankhamen.

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ILLUSTRATIONS

National Provincial Bank, Ltd.

When the question of building branches, illustrated this week, of the National Provincial Bank, at Stratford-on-Avon and Ludlow arose, the inhabitants of the town, through the medium of the authorities and societies interested in the preservation of local amenities, approached the directors of the bank with a request that half-timber buildings should be erected. These two buildings were therefore designed in oak framing and concrete. The floors are formed of 4 in. of concrete, reinforced with hyrib, laid on oak joists, 2 to 3 ft. apart. The walls are hollow, having brick or 2 in. breeze slab filling between the timbers and 2 in. breeze slab backing.

The following were responsible for the execution of the work:—

Stratford-on-Avon: General contractors, Messrs. James Cox & Co., Rother-street, Stratford-on-Avon; metal casements, lead lights and lead work, Messrs. George Wragge, Ltd., Arundel-street, W.C.; interior ironwork and signs, The Stratford-on-Avon Guild; carving, Messrs. F. Tibbenham, Ltd., Ipswich; heating, Messrs. J. Slater & Co., Oxford-street, W. 1; sanitary goods, The City Iron Co., Ltd., Upper Thames-street, E.C. 4.

Ludlow: General contractors, Messrs. Turford & Southward, Ltd., Gravel-hill, Ludlow; casements, leadlights and lead work, Messrs. George Wragge, Ltd., Arundel-street, W.C.; carving, Messrs. Tibbenham, Ltd., Ipswich; heating, Messrs. E. Deane & Beal, Ltd., Monument-street, E.C.; sanitary goods, The City Iron Co., Ltd., Upper Thames-street, E.C. 4.

Both buildings were designed by Mr. F. C. R. Palmer, F.R.I.B.A., F.S.I., and Mr. W. F. C. Holden, A.R.I.B.A., surveyor and assistant surveyor to the National Provincial Bank.

New Church of St. Michael and All Angels.

The first portion of this church, at South Lancing, Sussex, consisting of the chancel, chapel, two bays of nave and aisles and the vestry buildings, was recently consecrated by the Bishop of Chichester. The completed building will be about 110 ft. long and 55 ft. in width; the low square Sussex tower will be 46 ft. high. The external walling is faced with flints, a proportion of which are knapped. The greater portion of the flints were reused from an old building. Pieces of stone and a few tiles built in with the flintwork give relief to the surface. The ceilings of the chancel, nave and aisles are boarded, and are of the wagon type, that to the chancel and nave being ribbed and bossed. The two large angels marking the division of chancel and nave were designed by Mrs. N. Reid, A.R.C.A., and together with the ceiling bosses were carved by Mr. Robinson, of 4, Bennett's-yard, Westminster. Hand-made tiles cover all roofs, and a temporary belfry, covered with weatherboarding and roofed with oak shingles, houses a bell weighing 10 cwts., cast by Messrs. Gillett & Johnston, of Croydon, which was presented to the church during its erection. The bronze casements and leaded glazing was executed by Messrs. John Hall & Sons, Ltd.; and the locks and bronze door furniture by Messrs. Yannedis & Co., Ltd. Messrs. W. A. Gates & Sons, of Shoreham, Sussex, were the general contractors; and Messrs. Arthur Young & Allan D. Reid, of 5, Verulam-buildings, Gray's Inn, W.C. 1, are the architects.

House at Hampstead.

This house, at No. 29, Bracknell-gardens, Hampstead, N.W., was built from the design and under the supervision of Mr. T. J. Rushton, 2, New-square, W.C. The general contractors were Messrs. Randall & Pile, Greenaway-gardens, Hampstead, who also carried out the internal decoration. The fibrous plaster work in dining-room, drawing and morning-room is by Mr. E. Burton, Red Lion-street, W.C., from the architect's designs; bronze work and iron work, Mr. A. H. Bray, Sunderland-street, W.C.; central heating, Messrs. Rosser & Russell, London. Externally, the building is of Lawrence facing bricks and red tile roof with hard wood cornice. Internally all walls are plaster finish and painted; narrow oak boarded flooring, and mahogany staircase; internal doors and joinery, American whitewood (waxed).

MEETINGS

Friday, *April* 17.

London Society.—Sir W. Sefton Brancker on "Impressions of London from the Air." At 18, John-street, W.C.2. 5 p.m.

Saturday, *April* 18.

Architecture Club.—Visits to Britannic House and Adelaide House.

Monday, *April* 20.

Royal Institute of British Architects.—Mr. P. J. Waldram on "Natural and Artificial Lighting." At 9, Conduit-street, W.1. 8 p.m.

Surveyors' Institution.—Mr. W. H. Scanlan on "Leasehold Enfranchisement." At 12, Great George-street, S.W.1.

Tuesday, *April* 21.

Royal Institute of British Architects.—Mr. R. L. Rathbone on "Metal Work." At 9, Conduit-street, W.1. 5 p.m.

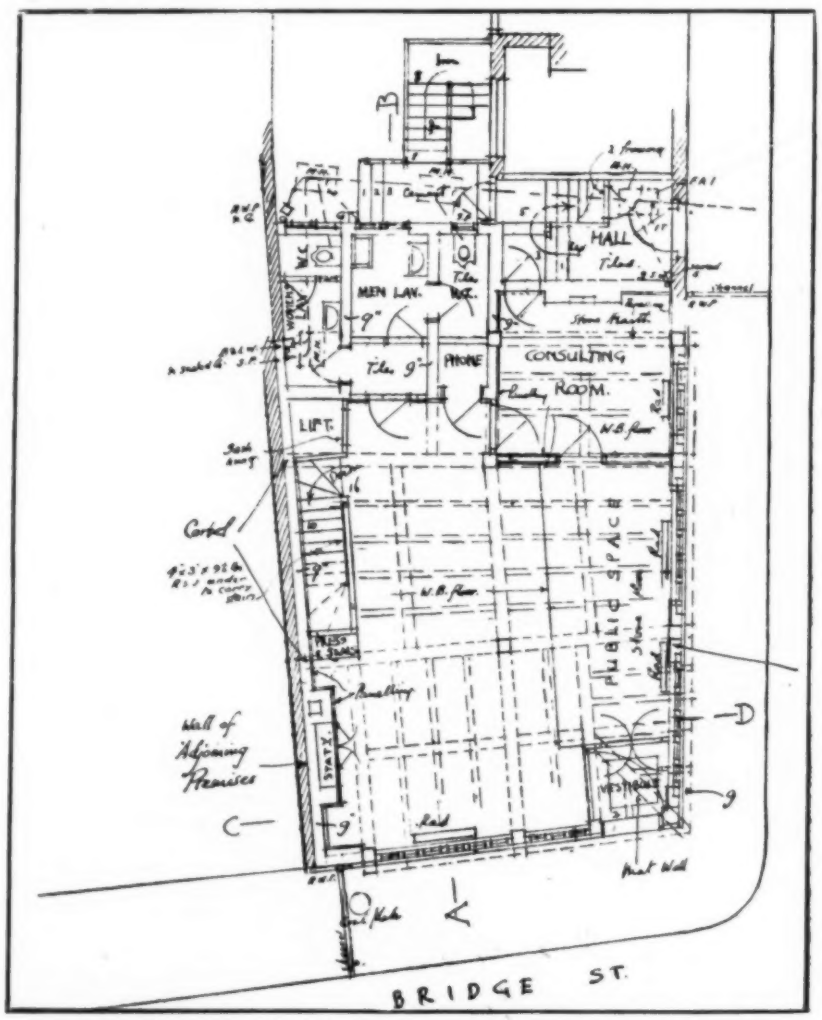
Builders' Clerks' Benevolent Institution.—Annual Dinner. At the King's Hall, Holborn Restaurant, W.C.2. 6.30 p.m.

Wednesday, *April* 22.

British Society of Master Glass-Painters.—Mr. J. A. Knowles on "Mediæval Glass-Painters' Methods of Using Cartoons." At 6, Queen's-square, W.C.1. 6 p.m.

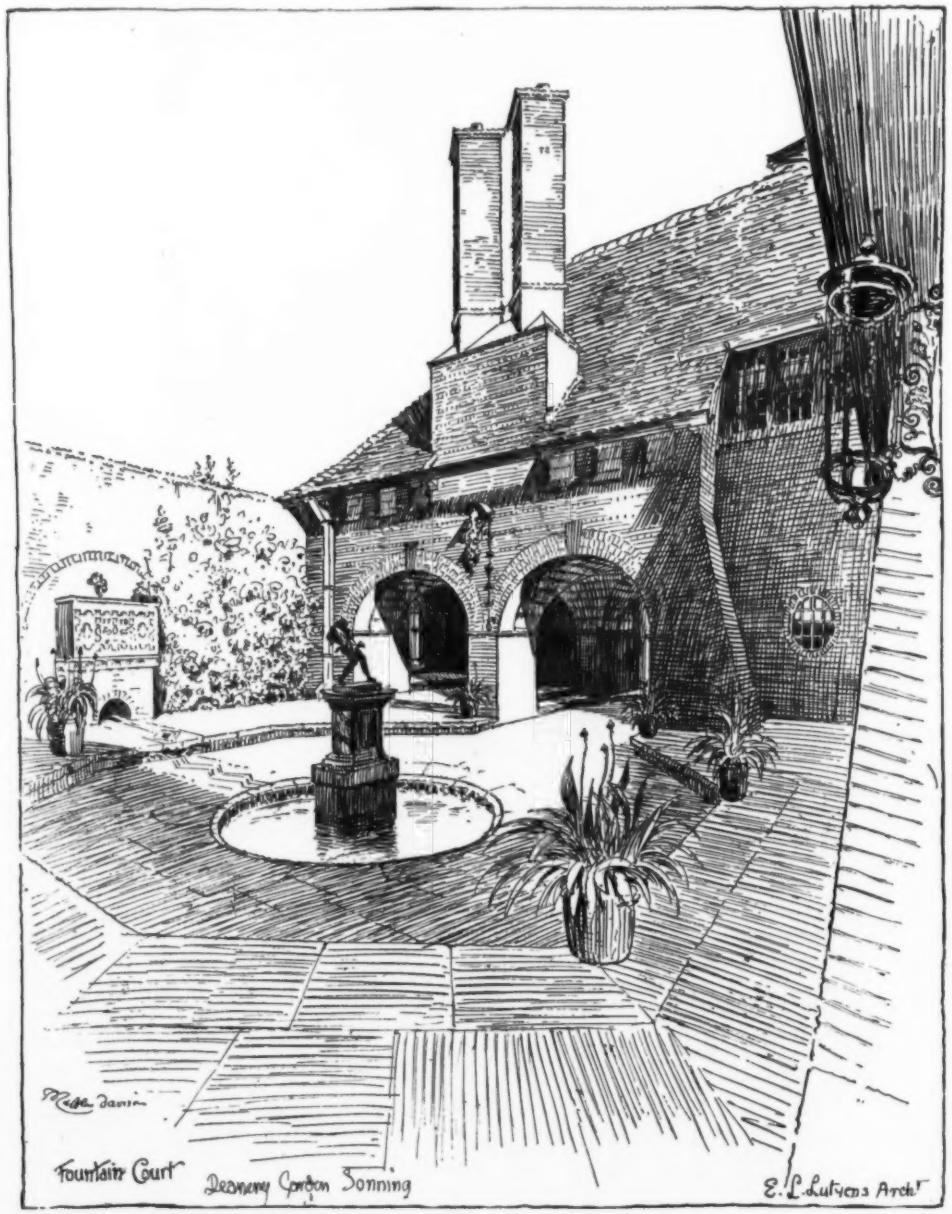
Thursday, *April* 23.

Society of Antiquaries.—Ordinary Meeting. At Burlington House, W.1. 8.30 p.m.



National Provincial Bank, Ltd., Stratford-on-Avon.

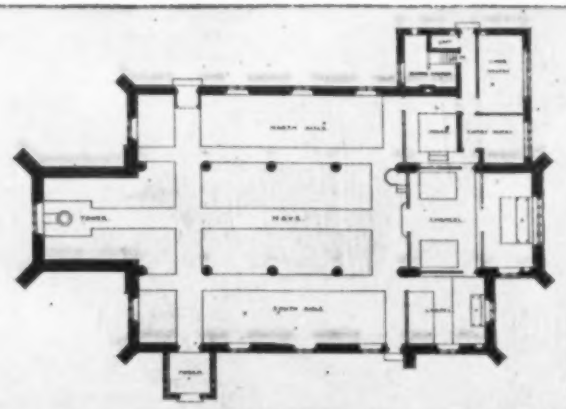
Mr. F. C. R. Palmer, F.R.I.B.A., Surveyor to the Bank, and Mr. W. F. C. Holden, A.R.I.B.A., Assistant Surveyor.



From the Exhibition at the R.I.B.A.

Sketches by Mr. T. Raffles Davison of House at Sonning designed by Sir Edwin Lutyens, R.A.

DESIGN FOR THE NEW CHVRCH AT SOVTH LANCING, SVSSEX.



New Church of St. Michael and All Angels, South Lancing. MESSRS. ARTHUR YOUNG & ALLAN D. REID, Architects. (*See p.* 596.)

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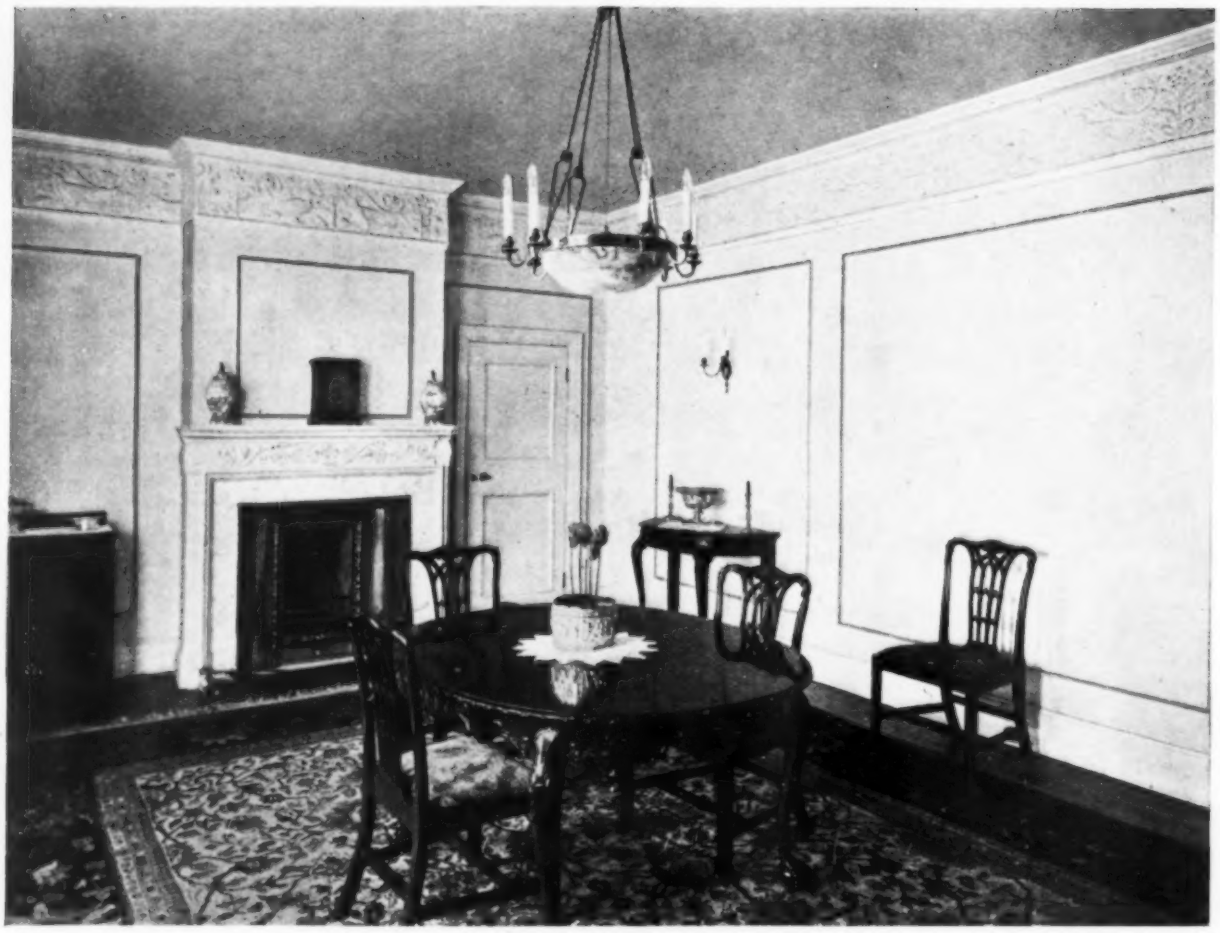

Dining Room.

Drawing Room.

House at Hampstead. Mr. T. J. Rushton, Lic.R.I.B.A., Architect.

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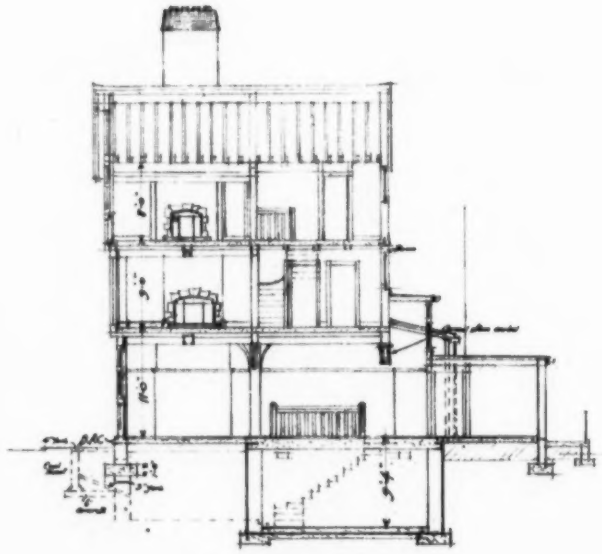
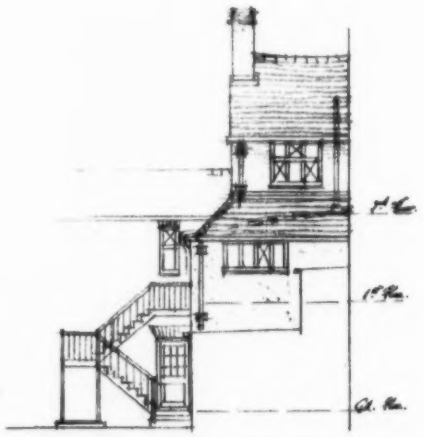
NATIONAL PROVINCIAL BANK LTD., STRATFORD-ON-AVON.

MR. F. C. R. PALMER, F.R.I.B.A., SURVEYOR TO THE BANK, AND MR. W. F. C. HOLDEN, A.R.I.B.A., ASSISTANT SURVEYOR.

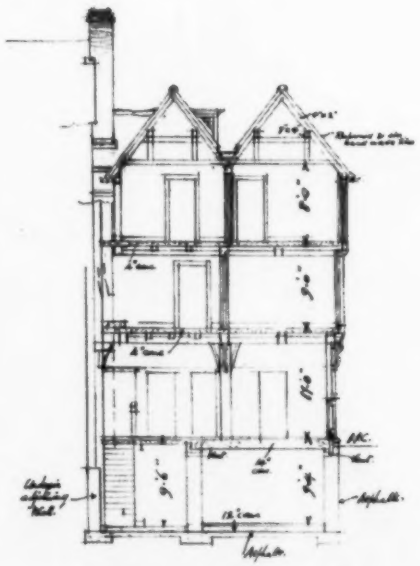
ELEVATION TO BRIDGE St.



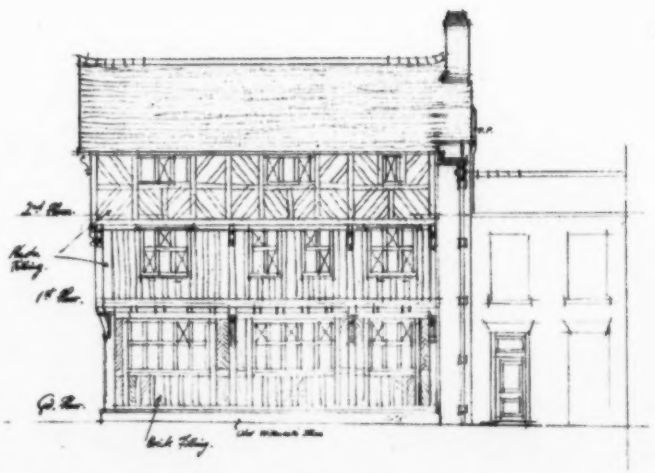
SECTION A-B.



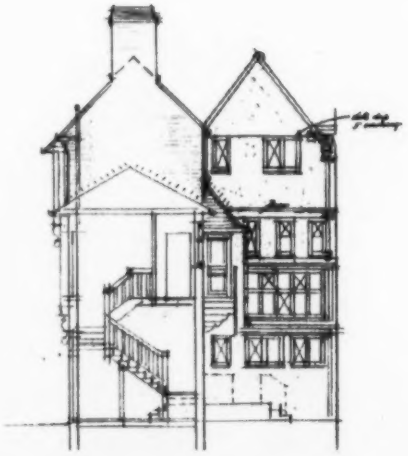
WEST ELEVATION



SECTION C-D



ELEVATION TO UNION St.



NORTH ELEVATION & SECTION E-F.

The N.P. & U.B. of E. Ltd. STRATFORD ON AVON.	NEW PREMISES ELEVATIONS & SECTIONS	SCALE. 8 Feet to an Inch.	F.C.R. PALMER. F.R.I.B.A. SURVEYOR N.P. & U.B.E. 15 Bishopsgate. E.C. 2.	Drawing. N° 2. 20. February. 1923.

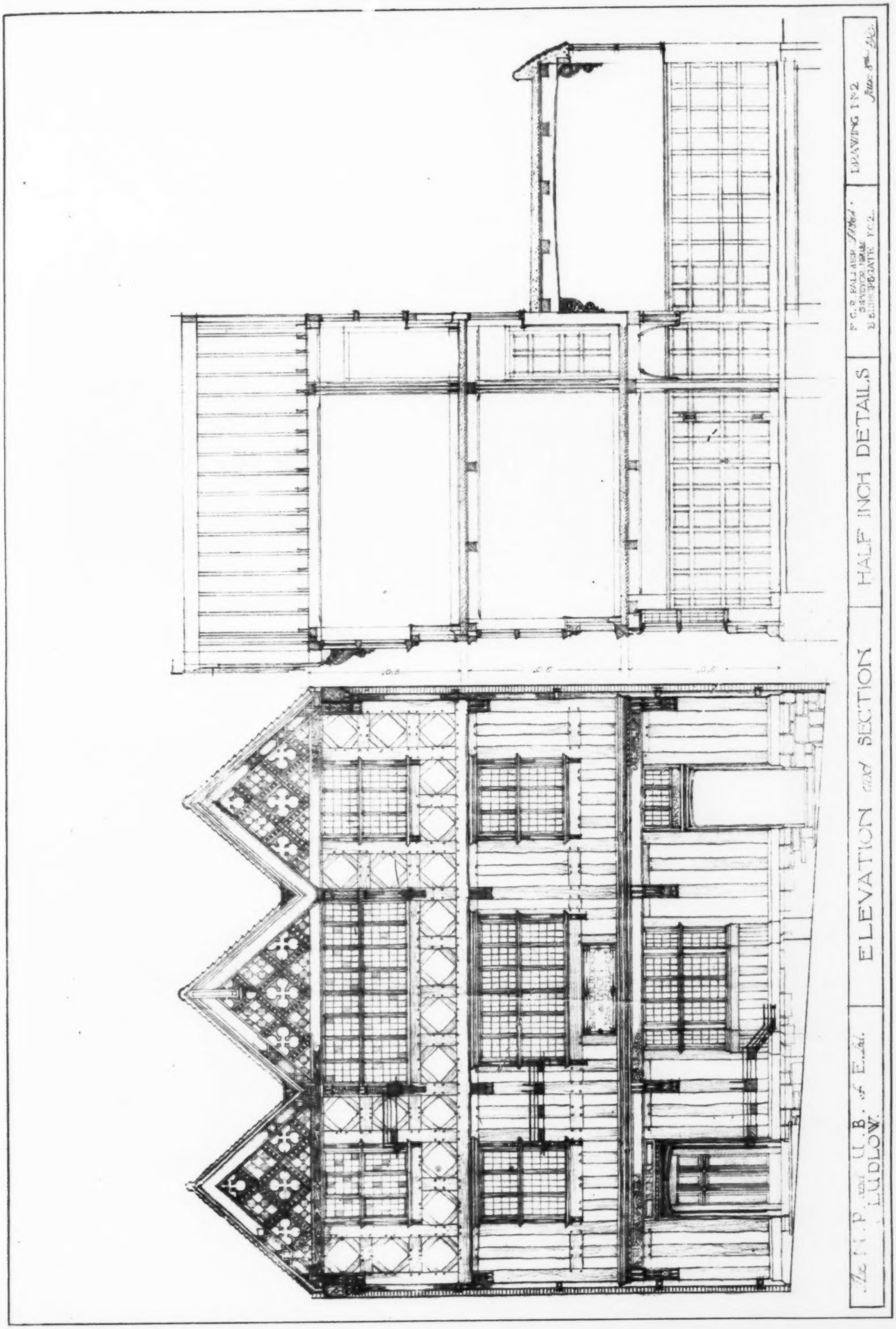
NATIONAL PROVINCIAL BANK LTD., STRATFORD-ON-AVON.

MR. F. C. R. PALMER, F.R.I.B.A., SURVEYOR TO THE BANK, AND MR. W. F. C. HOLDEN, A.R.I.B.A., ASSISTANT SURVEYOR.

THE BUILDER. APRIL 17. 1925.

NATIONAL PROVINCIAL BANK LTD., LUDLOW.

MR. F. C. R. PALMER, F.R.I.B.A., SURVEYOR TO THE BANK, AND MR. W. F. C. HOLDEN, A.R.I.B.A., ASSISTANT SURVEYOR.



ELEVATION AND SECTION

HALF INCH DETAILS

DRAWING No 2

NATIONAL PROVINCIAL BANK LTD., LUDLOW.

MR. F. C. R. PALMER, F.R.I.B.A., SURVEYOR TO THE BANK, AND MR. W. F. C. HOLDEN, A.R.I.B.A., ASSISTANT SURVEYOR.

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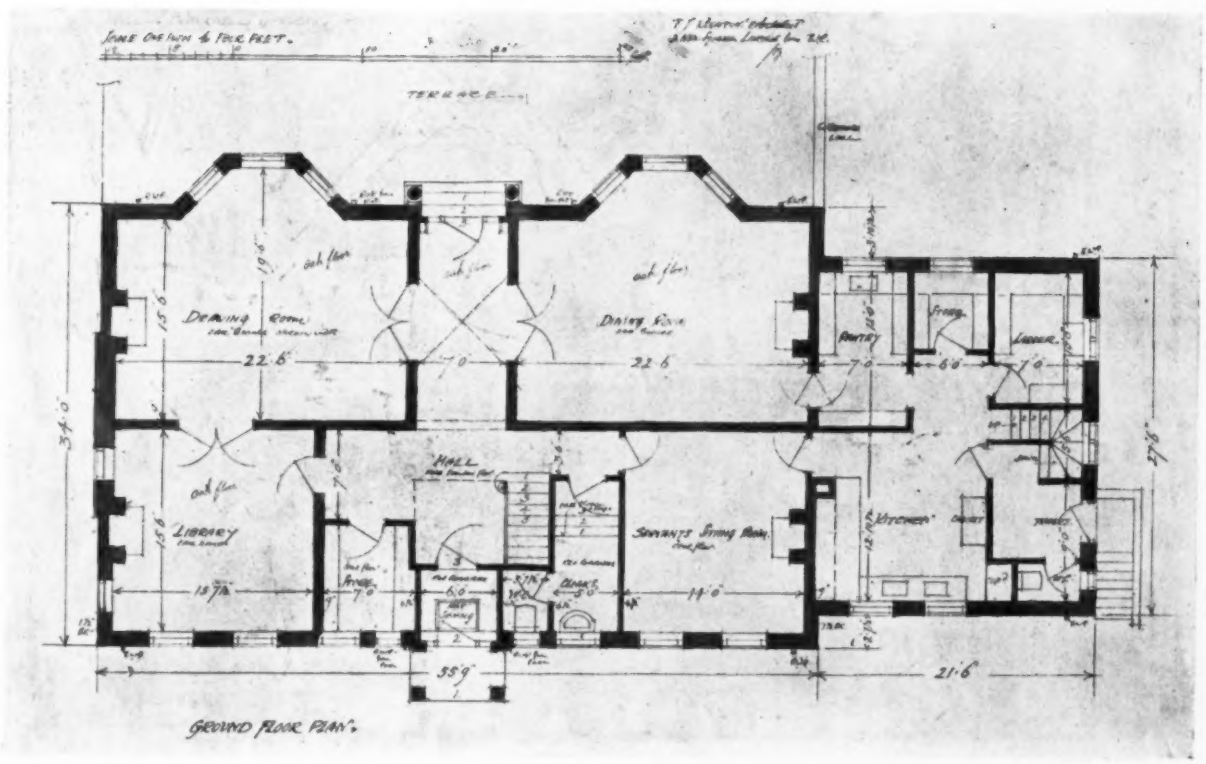
FRONT ELEVATION.



PLAN.

House at Hampstead. MR. T. J. RUSHTON, Lic.R.I.B.A., Architect.

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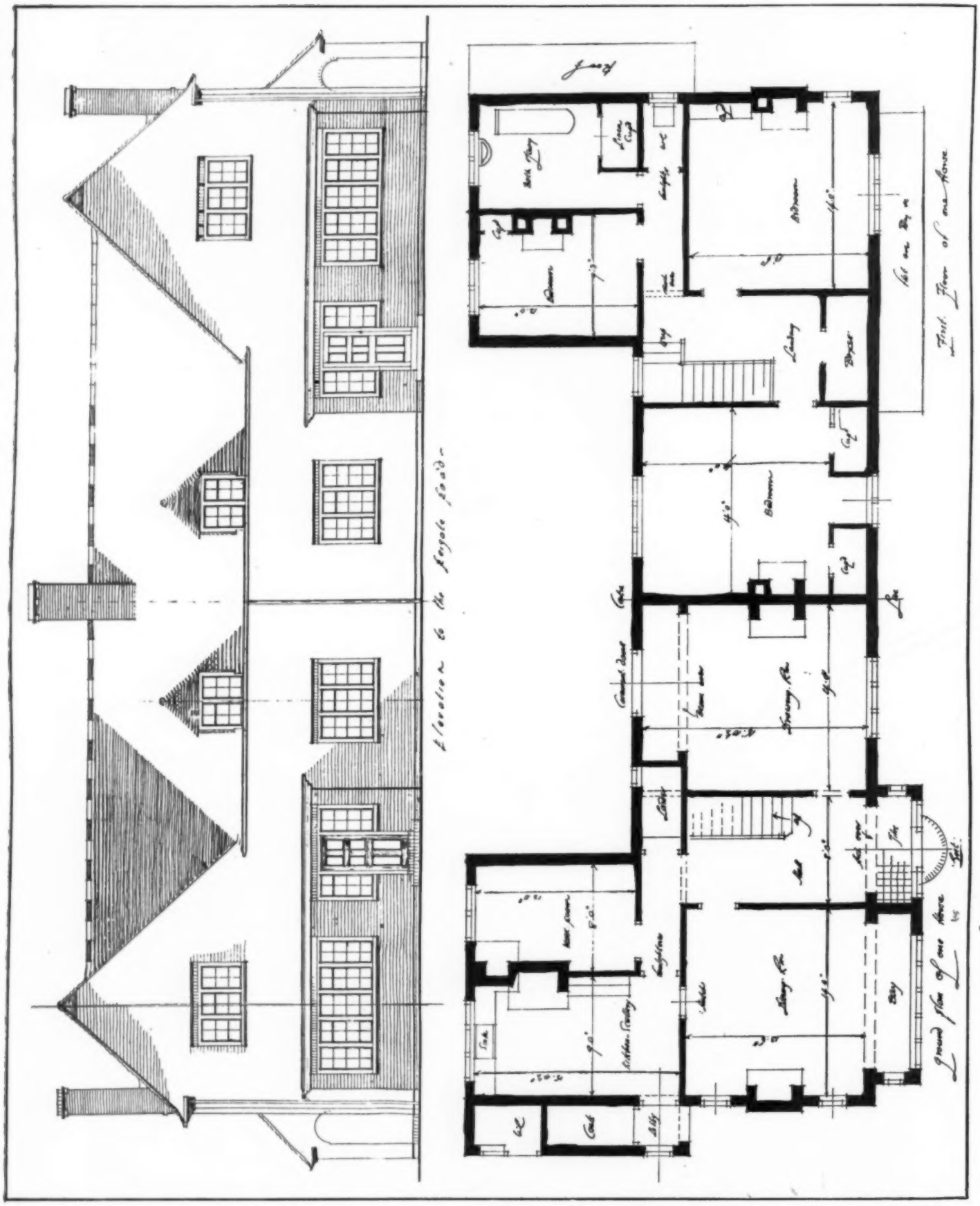
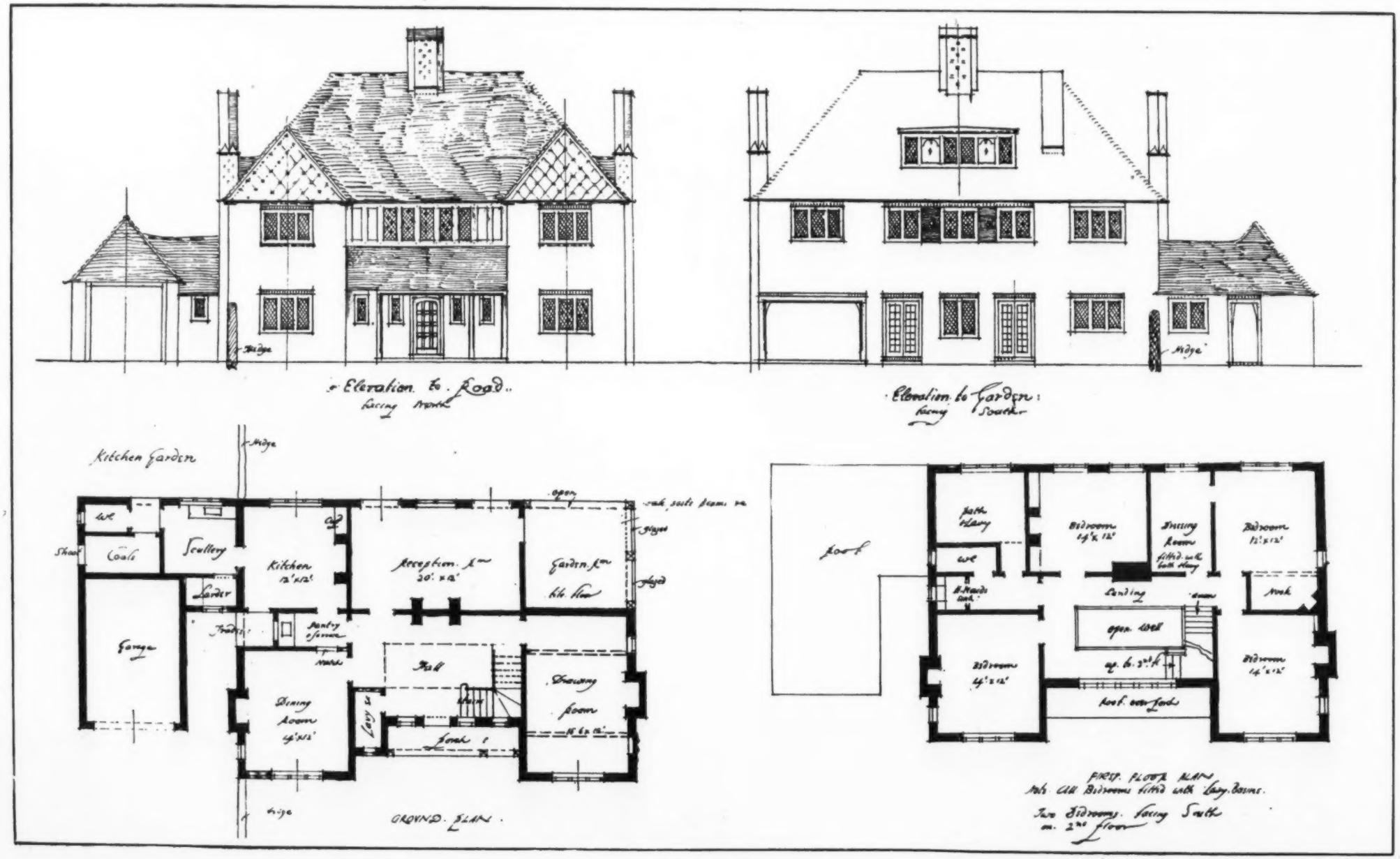
Top: Manager's Room. *Below:* Interior of Banking Office.

National Provincial Bank, Ltd., Stratford-on-Avon.

Mr. F. C. R. Palmer, F.R.I.B.A., Surveyor to the Bank, and Mr. W. F. C. Holden, A.R.I.B.A., Assistant Surveyor.

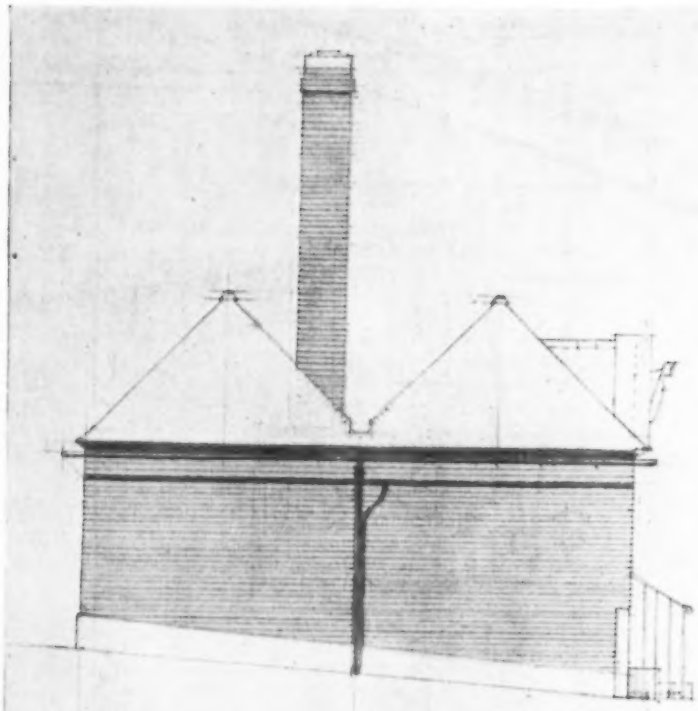


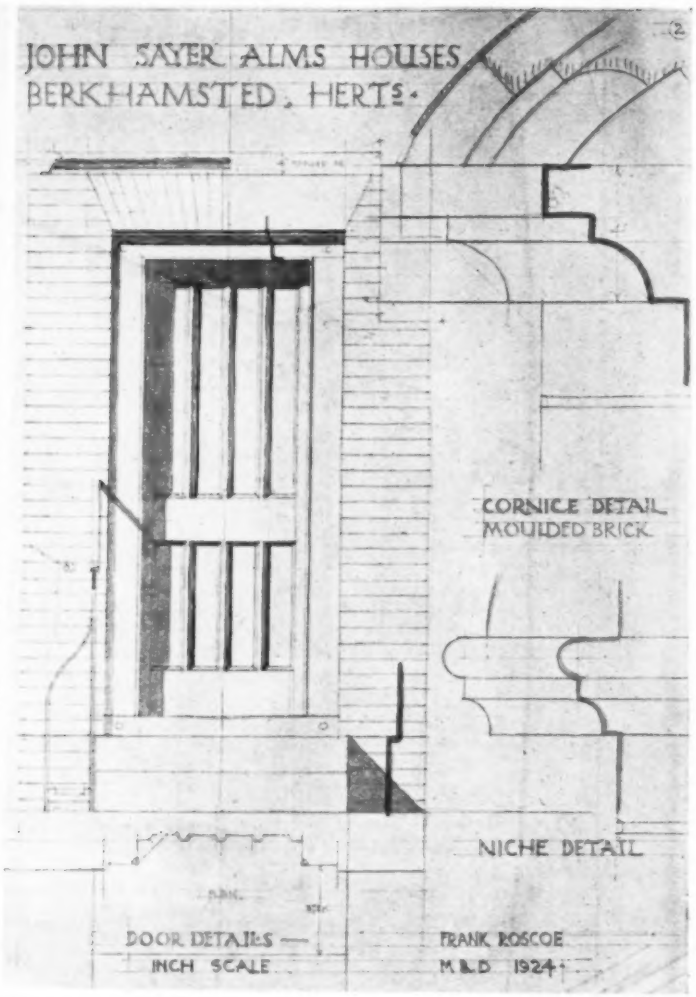
Pair of Houses at Ewell, Surrey. Mr. T. F. HAWKES, Lic.R.I.B.A., Architect.

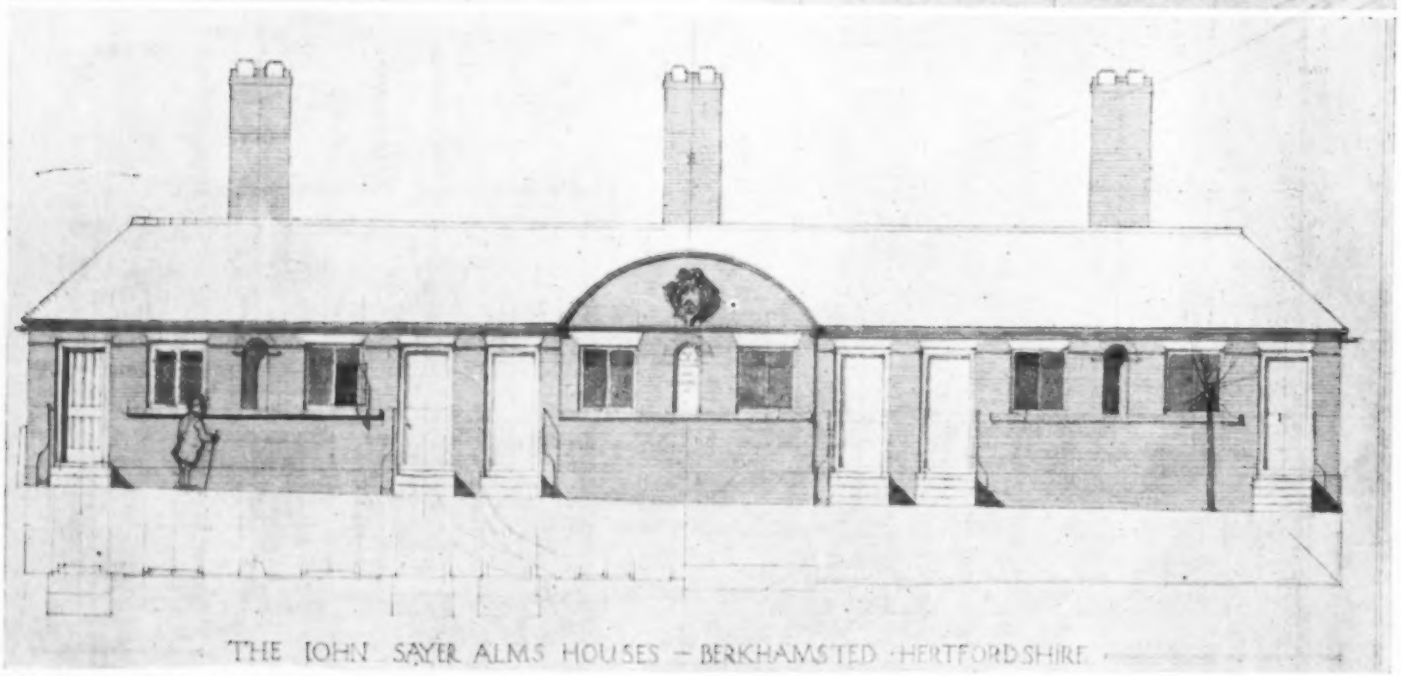


House at Esher, Surrey.

MR. T. F. HAWKES, Lic.R.I.B.A., Architect.


EXAMPLE OF 17TH CENTURY DOMESTIC ARCHITECTURE IN BRICK.
THE ROOF IS OF PLAIN TILES
THE WOODWORK IS PAINTED BLUE.
FRANK ROSCOE. M & D. SEPTEMBER 1924.





Architectural Association Students' Work.

Measured Drawing by Mr. Frank Roscoe.

[The town of Berkhamsted in Hertfordshire, possesses many buildings of historic interest. The almshouses were founded by John Sayer, and were built in the year 1684. The stone cartouche bearing the coat-of-arms of the founder is a notable though now weather-worn feature, as is the inscription stone bearing the words, "The Guift of Iohn Sayer, Esq., 1684." Unfortunately the latter is modern. The brickwork is in English bond with black headers frequently used. The arches and niches are in rubbed brick with fine white joints, while the niche heads are of tile. Moulded bricks are sparingly but well used. The woodwork is at present painted blue; the doors are very simple and very good. Each house contains two rooms and each stack takes four flues, corner fireplaces being used throughout. The roof is of plain tiles and the double roof, as shown on side elevation, is of interest.]

THE BOOK OF SILCHESTER*

This is not merely a book of Silchester, but is a monument of industry. The author has ransacked every source of information and if he had done nothing else in his busy life this contribution to archæological studies would entitle him to a place in bold script on the roll of literary fame. He came to London 45 years ago, and in the intervals of business and journalism has helped to found literary societies, sat on boards of education, lectured on subjects so diverse as paper-making, archæology, Shakespeare and Burns, to say nothing of official activities in various London-Scottish associations, schools and clubs, and as a prominent and philanthropic Freemason he is well known.

The full first title of the book reads "A Great Free City, The Book of Silchester"—the two phrases might with advantage be reversed. The sub-title is well worth quoting in full, as it quite adequately covers the full scope of the two volumes, containing 400 and 352 pages:—

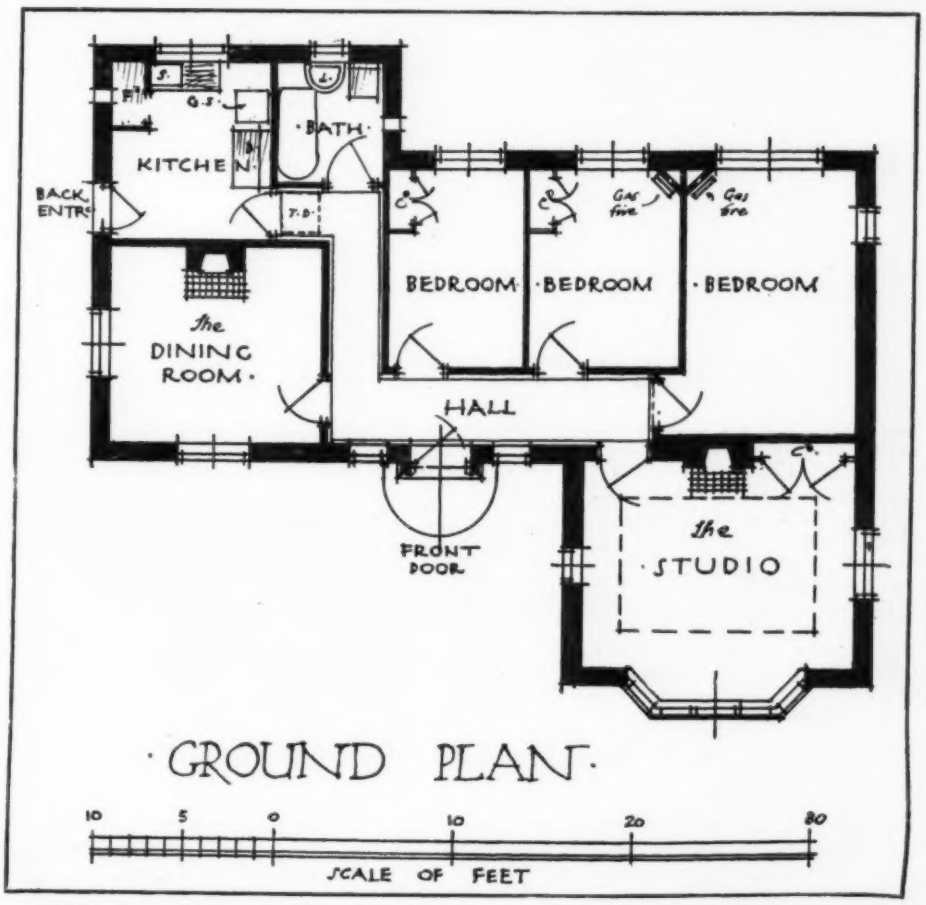
"The Dramatic Complemental History of the Remarkable Atrebatian Stronghold which became the Imperial Municipality called Calleva Atrebatum, the Third Free City of the Romano-Britannic Province more commonly known as the ruins of Silchester."

Few of us but know something of, or can at least visualise, the delightful village of Silchester on the Berkshire edge of Hampshire, midway between Reading and Basingstoke, with Bramley and Mortimer as near and equi-distant railway stations. It stands some 300 ft. above sea level, where the inhabitants say they live "in the mean." The unspeakable Saxon gave it the name which has been the subject of several modifications in spelling since the fifth century. It stands as "Cilcestre" in Domesday Book—a slight modification of "Silicis Cæstre," flint camp, probably suggested to the Latin-writing Saxon invaders by the flint walls of Calleva which they had failed to eradicate. Our author gives us the pros and cons of this and other suggested derivations.

Silchester, with its picturesque seven-century-old church, stands plain to the naked eye that he who runs may read its Saxon and mediæval story; and it stands adjacent to—the church and Manor House only being on—the site of Calleva Atrebatum "the third free city of the Romano-Britannic province." But what lies under the adjacent fields and farm steadings is quite another story, or many stories. For hundreds of years the ploughshare has been turning up Roman coins, shards and other tokens of a bygone age, and for two generations archæologists have been digging out the foundations of Calleva and disclosing the long-hidden lay-out of her symmetrical streets with Forum, Basilica, temples, baths, hospitals, inns, spacious patrician villas with their tessellated pavements, and dwellings of the "meaner sort." Here we find Pagan Rome cheek by jowl in amity with Christian Britain under the mild rule of Constantine, as evidenced by the exposed foundations of the little Christian church which, with poetic licence, the author, tentatively, renames "Christ Church, Calleva." The ground plan of this tiny primitive Cathedral—for so we may call it—of the then prevailing Basilical outline, measures but 42 ft. long by 31 ft. wide, and had a probable height, by deduction, of about 28 ft. It is small in comparison with Calleva's official Basilica with a plan of 270 ft. by 60 ft. and a conjectural height of about 70 ft.; but Christ Church, Calleva, fires the imagination, "dating back to the first quarter of the fourth century, in all likelihood between the years 316 and 325, that is to say, immediately after Constantine's "Edict of Toleration, issued A.D. 313." We have it on the authority of the Venerable Bede that a Britannic Church was in existence some time about A.D. 177–187, but "not only is Christ Church, Calleva, the oldest Christian foundation yet discovered in this country, but in a sense it is a memorial and a testimony to the simplicity and spirituality of Christian faith and practice." Pompeii was overwhelmed and buried in lava and volcanic ashes in one day's round of the clock, and has remained hermetically sealed, but otherwise comparatively intact, down the centuries for the modern excavator to read the story of her life in her Dies Ira. Callavera's destroyers were more ruthless than Vesuvius and, but for the city wall of flint, too tough even for their fire and rage, they scarcely left one stone standing on another much above the foundation levels. But with these exposed foundations, together with occasional fragments of superstructure such as wall stucco, Corinthian capitals, broken pilasters and roofing tiles found in the debris, and in the light of Pompeian and other comparatively well preserved contemporary buildings in various parts of the Roman Empire, it is quite possible to reconstruct Calleva Atrebatum as she stood in the sixth century.

The author says that he approaches his subject from two points—Historical and Archæological—and he might well have added a third—conjectural reconstruction; and it is in this work of mental reconstruction that he excels

* "The Book of Silchester." By James Thomson, F.S.A.Scot. Two volumes. Large paper (Royal 4to.), £5 5s. Small paper (Impl. 8vo.) £3 3s. (Simpkin, Marshall, Hamilton, Kent & Co., Ltd., London).



House at Sutton Garden Suburb. Mr. J. A. Bessant, A.R.I.B.A., Architect.

[This house was erected in 1924 at the Sutton Garden Suburb. The shape of the site and the clients' wish to preserve an oak tree in the front garden necessitated the rather rambling plan which was adopted. The walls are of 9 in. solid brick, finished with cement roughcast. The roof is laid with red sand-faced tiles. Metal windows supplied by Messrs. Hope & Sons were used in wooden frames; "Devon" fires were used in the two sitting rooms, the bedrooms having gas fires. The cooking is by gas stove and the hot-water by geysers to sink, to kitchen, and to bathroom.]

and in his text, illustrations and diagrams paints for us a picture, not of Rome, Pompeii, or any such super-stately city of the Peninsula, but a comparatively humble example of town planning. It was a city, stately enough in the eyes of the British, Gallic and Belgic tribes who were anything but a horde of savages, but a city boasting little or nothing of the costly material of its continental prototypes, constructed from local flint, quarrystone and kiln-burnt tiles of the country-side—even the mosaics were mainly of local materials—and the most precious stone in use was the always beautiful fossiliferous Purbeck marble from Sussex and the Island of Purbeck in Dorsetshire. Calleva Atrebatum was not pre-eminently a strongly fortified town; it was not even in a strict sense a military station, but was strong enough to constitute (in a fairly peaceful country) a pleasant caravanserai nearly midway on the Roman road from Londinium to Aquæ Solis (Bath). Half way to it, some 22 miles, from Londinium the Roman legions would have passed through, or near to, the country of the Bibroci, a Celtic-Belgic or Gallic tribe whose memory, we suggest, still lives in the name of The Brocas—those sometimes pleasant but recently very wet water meadows on the confines of Eton. Perhaps it lives again in Bray two or three miles up river on the opposite bank? From the country of the Bibroci to "The Grove of the Atrebates," or Calleva Atrebatum, so-called by the Romans, would be little more than a short day's march, and what they did to refresh and amuse themselves when they arrived there the reader will discover in this book.

How and why Mr. Thomson came to write the book is in itself pleasant reading, and how certain proof copies awaiting a favourable opportunity for publication were preserved during troublous times just prior to 1918 is a romance of modern literature. The writer has shown us how a book dealing with the dust of ages need not be written in a dry-as-dust style. When occasion requires he can be epigramatic and point his moral and adorn his tale quite racily and humorously.

OLD ENGLISH FURNITURE

In the course of a lecture recently at the Geffrye Museum, Shoreditch, on "The Materials used and the Old Methods of Construction in Relation to Design," Mr. J. C. Rogers, A.R.I.B.A., said it was most important to the success of the crafts to-day that whatever designing were attempted an effort should be made at design rather than turning out reproductions, and designers should work on the sure foundation of traditional knowledge. The old traditions were founded on ages of practical experience, the final preference of skilled craftsmen for certain materials, methods, and forms, and much could be learnt by analysing the work of the old craftsmen under three heads, viz., construction, form, and enrichment. The first two considerations were inseparable and vitally important; the third, though desirable, was not vital, in fact, many a pleasing piece was very pleasing although entirely devoid of enrichment such as painting, carving, or marquetry.

In all true craftsmanship the qualities and limitations of the materials employed very largely governed the design, so that in furniture it was necessary among other things to study the growth and nature of the woods employed before getting very far with the traditions and other factors influencing design.

Oak took pride of place among the woods used in English furniture, and was the chief wood used for furniture through the seventeenth century, when the fashionable taste (in 1660) turned decidedly to walnut. But oak was still in demand for carcase work, drawer linings, etc., and in country districts simple pieces of oak furniture were made in all the succeeding styles for which walnut and mahogany were used in fashionable work. Early forms of construction were best studied from the old chests or coffers. Many specimens of the thirteenth and fourteenth centuries remained in which metal was kept out of the construction entirely, while in the fifteenth century the construction was lightened by the use of thinner boards. To the student of furniture the sixteenth century was of vital importance, for it was then that panelled framing came into use for articles of box formation, chairs, etc. That was a tremendous advance in construction; it was the change over from crude carpentry to skilled joinery, and established complete mastery over the refractory oak. All along the struggle had been to gain lightness and guard against the natural tendencies to warp and split, twist and shrink. Panelled framing combined lightness with great strength, large superficial areas could be built up by simply multiplying the unit panels, and the panel itself was determined by the width of a good quarter-cut board, *i.e.*, about 10 in. to 12 in.; moreover, the panel, being held on all four sides in the rails, could be quite thin, and, what was of still greater importance, the panel was free to expand and contract in the grooves in which it was tongued, so that splitting and buckling were also eliminated.

Other methods superseded this panelling when, to conform to a new fashion from abroad, wide flat surfaces were required for laying veneers, but from a constructional point of view these were a retrograde step. In the first half of the seventeenth century panels were enriched with moulds, both in the solid and applied; the latter became extensively used in building up composite panels of various types, and as the carving became flatter and plainer in treatment, light and shade were provided by split and applied turnery, often stained black. The next constructional novelty to appear was the sliding door, in Elizabeth's reign. The oak chest of drawers remained popular in country districts right throughout the seventeenth century, the fronts being decorated with many rich shapes with thick veneers in stripe of fruit and foreign woods and inlaid panels.

The first gate-leg table appeared at the beginning of the seventeenth century, and very early specimens generally had the solid trestle ends.

The walnut period, which commenced in 1660, introduced much that was quite new to the English joiner and cabinet-maker. Hitherto England had always lagged behind Continental countries in furniture comfort, but after a few years of tuition from the Dutch craftsmen, who came over with or followed Charles, they were producing fine furniture as soundly made and as beautiful as any then being turned out in Italy, France, Spain, or Holland. It was quite a revolution, but not a step in the right direction.

There was an old and popular notion that veneering denoted a cheap article, and was resorted to for the purpose of deceiving the simple into the belief that they were buying solid wood. Nothing could be farther from the motives which prompted the use of walnut veneers during the reigns of Charles II and James II, William and Mary, Anne, and George I. To begin with, it was difficult to obtain walnut in large boards; it was none too plentiful, and the straight-cut grain was not really interesting. Cuts at different angles, however, especially at the bottom of the bole by the roots, provided veneers with very beautiful markings, as also did sections through burrs. Owing to the position and direction of these cuts there could be no structural strength, and consequently veneers were naturally suggested; the old saw-cut veneers ran six, seven and eight to the inch. The decorative value of this strongly-marked wood was very great and fully realised, and if the manner of laying were carefully studied it would be seen that the old cabinet-makers composed panel effects in a way that clearly showed they regarded it as surface decoration. As veneer it was honest and justifiable, and with the grain balanced about joints where mounts were placed, such as on chests of drawers, the effect was delightful.

The decline in the use of walnut and the gradual supersession of mahogany took place in the eighteenth century. The early supplies of mahogany came from San Domingo. It was a dark, heavy, compact wood which quite defied the tools hitherto employed upon walnut. Moreover, its cost was very great, and its use was confined to fashionable tables, chairs, and stools which differed but little from Queen Anne models, while walnut-veneered chests, cabinets, bureaux, etc., were still made for use in bedrooms, etc. This state of affairs continued almost up to the middle of the eighteenth century, when wood imported from Cuba was found to yield finely-figured veneers for chests, cabinets, etc., and so finally ousted walnut. In the second half of the eighteenth century another mahogany, known as bay wood, was imported from Honduras; it was softer and lighter in weight, with a more open grain, but it was ideal for first-class carcase work.

House at Ashley Wood Estate, Walton-on-Thames.

Mr. George De Wilde, Lic.R.I.B.A., Architect.

[The cost of this house was £950.]

THE EVOLUTION OF THE HOUSE

Mr. Edward Yates some time ago delivered a lecture on this subject before the Royal Archæological Society. In the course of his remarks the lecturer said the first beginning of that primitive instinct or necessity in man to provide a shelter from the elements and protection from enemies for himself and those dependent upon him, which now found expression in all they understood by the word "home," had truly been called "the mother of architecture." According to Vitruvius, man in his primitive state began to imitate the nests of birds and the lairs of beasts, first making arbours of twigs plastered with mud, and then huts formed of branches of trees covered with sods of turf. Other writers gave three types of primitive shelter: caves and rock shelters for those engaged in hunting and fishing, huts for those engaged in agriculture, and tents for herdsmen and shepherds.

After dealing with a number of historical buildings of the past, the lecturer said as time went on the carpenter began to give a little rein to his imagination and to make use of natural crooks in the forest trees to brace his wider-spaced timbers. Purely constructional at first, the possibilities as a decorative feature were quickly noted. The departure from the long persistent mediæval type of house also gave him further scope. More rooms were needed by progressing ideas in matters of comfort and privacy, and it was not necessary they should be under the one-span roof generally found in the hall-and-solar house. They therefore found rooms arranged at one or both ends, sometimes in the centre of the front. Godfrey House, Hollingbourne, showed the projection of the porch and rooms over it in the centre of the front, and the gables cutting into the main roof made a very good sky line. Middle House, Mayfield, had the break at both ends, the wide gables with their fretted and carved barge boards being very effective. The ornamental panels in the framing nicely broke up the monotony of vertical lines and, with the square panels, made a pleasing combination. The largest of timber-built houses they found in Cheshire was Moreton Old Hall, probably the finest example remaining of "black-and-white" or "magpie" work. It was built in 1559, but some additions were made in 1602. Encompassed by a moat, it was a quadrangular building ranged around a courtyard of about 45 ft. wide by nearly 70 ft. long. Gothic in plan and general style, various details of ornament showed that a new influence—the influence of the Renaissance—was being felt.

The fourteenth century experienced the devastating effect of the Black Death, and with one-third of the population destroyed there was probably little necessity for much building during the century, and when it was taken into consideration the large numbers of the labouring classes required by the enormous estates of the abbeys and priories who were housed about the great monastic buildings, it seemed doubtful if much building—of the smaller houses, at all events—was necessary before the great alteration created by the dissolution of the monasteries in the middle of the sixteenth century. Throughout the fourteenth century the better houses, except those of the very wealthy, were small and could have provided little comfort, as they understood it. At Penshurst, Kent, and surrounded by buildings of later date, there was a wealthy gentleman's house of about the middle of the century—just a hall, with pantry and buttery at one end and cellar with solar over at the other end. The windows had tracery of peculiar pattern called Kentish tracery, and the passage-way through the hall was behind the screen and had the doors to buttery and pantry on the left.

A demand for more rooms, making for greater privacy and comfort, gradually asserting itself, during the fourteenth and fifteenth centuries this accommodation was added as required, delightfully arranged and grouped with the earlier work and yet with an utter disregard to symmetry. It was to this that much of the charm of the Gothic house was due.

Eltham Hall brought them to the end of the fifteenth century. During the four centuries, from the beginning of the twelfth century to the end of the fifteenth, their native styles of building had been slowly evolved. The growth had been quite original and insular, unaffected by styles practised elsewhere; but with the incoming of the sixteenth century a foreign influence—that of the Renaissance—began to make itself felt. Observable at first only in small details and ornament, it afterwards affected both plan and elevation, reaching to classic proportion and symmetry in place of the picturesqueness and individual features so sought after in Gothic times.

The seventeenth century was to witness the full effect of the "Renaissance" in building, and Inigo Jones introduced a style following more closely the Italian examples he had been long studying, and his Banqueting Hall at Whitehall, the only completed portion of a great scheme designed by him, had been described as "one of the grandest architectural conceptions of the Renaissance." The Palladian style introduced by Inigo Jones had many wealthy patrons, and in the end it became so affected by a demand for symmetry and grandeur that to secure an imposing front all comfort and convenience of those who had to dwell in such a house appeared to have been sacrificed and held unworthy of consideration. General Wade was the happy possessor of one of these noble mansions, and Lord Chesterfield told him he ought to take a lodging opposite his Palladian mansion if he liked nothing but the front.

FASHIONS IN BUILDING*

This is an engaging little book packed full of thoughtful philosophy. Its interest to architects lies in the main thesis—the organic relation of dress to architecture. In tracing the connection between the two arts it is obvious there must often be gaps in the narrative; nevertheless, the author has succeeded in working out a philosophy which requires very careful consideration. The book is written with care and knowledge, and touches a wide range of historical and philosophic research. As we read, we are also conscious of the assurance that the author has more than a working knowledge of architecture. We confess that in the past the anthropological treatment of architecture has inclined to irritate us, probably because we were out of patience with it. Buildings had eyebrows, and a cornice was like the brim of a hat. Unfortunately for the argument, the waist of the building had rows of brims. We forget this nonsense when reading Mr. Heard's serious contribution. He deals with his subject from the beginning; he traces the evolution of man, and follows the history of costume parallel with architecture down to the present day. The pointed arch and the pointed shoe advance together; they reach their common climax, then slowly retreat until the sableton and the four-centred Tudor arch are blunter than the round arch from which they sprang 350 years before. When we come to the question of fashion the analogy between the tailor and the architect seems to us to fail. "But in a live age fashion does not stop merely because all use and need are adequately met. It becomes conscious as fashion *per se*. It deliberately seeks variety. It imitates change not because tailors can cut better and fit closer, but because the tailored are tired of looking the same." It is long since we were tired of many buildings, but we have to put up with them, and it seems to us that the permanency of architecture is sufficient reason why it should be chary of the whims of the moment. The suggestion that "we cannot tell if next year well-dressed men will have two or three or even four buttons on their sleeves," borders on the point when the analogy of costume is almost a ridicule upon architecture. The art of architecture is not yet so ephemeral as the art of the tailor, and for this reason, probably, it receives a smaller share of fashionable curiosity and criticism. The comment that "to-day a man will live in a 'mixed' house and worship in a 'mixed' church and never feel a twinge of incongruity, but nothing would induce him to go from house to church in a top hat and toga" is a true statement which is open to many interpretations, and the architect will find small comfort in realising that architecture is not a "real" convention. In the last chapter the author puts forward his theory (which as a prophecy may easily be correct), that the static phase of architecture is over, that the centre of interest in domestic buildings shifts and narrows, and that we may live to change our buildings as quickly as a woman her clothes. Altogether this is a thoughtful little book, and it is worth mentioning that it is excellently produced, and that the price is cheap.

* "Narcissus. An Anatomy of Clothes." By Gerald Heard. (London: Kegan Paul & Co., Ltd.) 2s. 6d.

BOOKS RECEIVED.

The New Housing Handbook. By Richard Reiss. (London: P. S. King & Son, Ltd.) Price 4s. 6d.

Accounting and Business Methods for Contractors. By Chas. F. Dingman. (London: McGraw-Hill Publishing Co., Ltd.) Price 12s. 6d.

Wells and Bore-holes for Water Supply. By J. E. Dumbleton. (London: Crosby Lockwood & Son.) Price 10s. 6d.

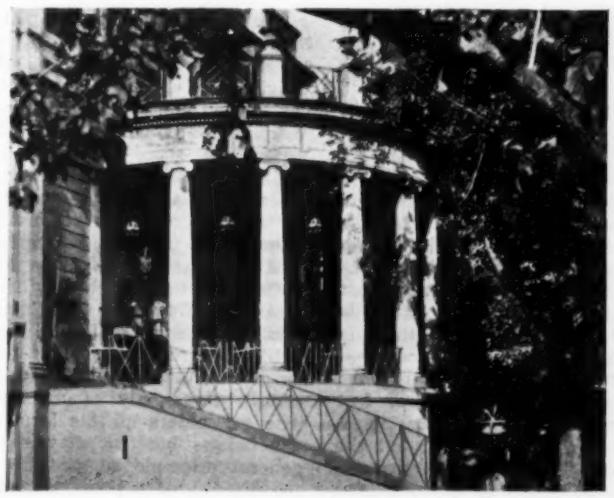


Photo: Mr. C. L. Gill, F.R.I.B.A.

Restaurant on the Pincian Hill, Rome.

RATING MACHINERY

REPORT OF THE COMMITTEE.

It will be remembered that when the Draft Rating Bill was circulated it was stated in an accompanying memorandum that as regards the rating of machinery a Departmental Committee would be appointed to report on this aspect of the question. The Inter-Departmental Committee which was appointed to inquire "Into the present law and practice in regard to the rating of machinery and plant in England and Scotland respectively, to make recommendations as to the alterations which are desirable and practicable, having regard to the financial and other considerations involved, with a view to removing inequalities, and, if possible, assimilating the law and practice of the two countries and to make definite proposals for giving effect to such recommendations," has just issued its report, and it is a document which should be studied with care.

The Report is extremely interesting. As regards the law, the Committee decided that it was unnecessary for them to refer in detail to the cases decided before the law was laid down by the House of Lords in Kirby *v.* Hunslet Union Assessment Committee (1906), A.C. 43, the headnote to which case, as reported in the Law Reports is as follows:—"Tenants' machinery placed in a factory and used therewith for the business of the factory, whether it be affixed to the freehold or not, may be taken into consideration so as to increase the amount in assessing the factory to the poor rate. The law and practice to this effect have been too long established to be now overruled." The Committee point out that the decision contains no direction as to the way in which machinery and plant should "be taken into consideration or account," and thus, in practice, there has been a lack of uniformity; but the Report states that in the opinion of most witnesses called before them this ambiguity was in theory cleared up by the decision of a Divisional Court in the case, S. Smith & Sons (Motor Accessories), Ltd., *v.* Willesden Union Assessment Committee (1919), 89 L.J.K.B. 137 (a case not reported in the *Law Reports*), the headnote of which is, "The rateable value of premises used as a factory, which is equipped with machinery for use in connection with the hereditament, is measured by the rent which a hypothetical tenant would be willing to give and a hypothetical landlord would be willing to take for the right to occupy the building and use the machinery, it being assumed that the hypothetical landlord provided both building and machinery." The Committee, for the purposes of their Report, accepted the rule as thus laid down as being in accordance with the opinions of the Law Lords as expressed in the Hunslet case, and considered it abolished any distinction between "rating" machinery and taking it into account showing that the full annual value of all machinery and plant upon the premises must be taken into consideration as if it were the property of the landlord and actually part of the hereditament, but the Committee observed that the rule as thus laid down had not as yet been universally recognised.

The Report states that, so far as matters to be "taken into consideration" under the Hunslet case are concerned, it had been suggested by witnesses that there might be some doubt (1) whether the decision would not justify the application of the same principle to the furniture of an hotel or the fittings in a shop, office, or warehouse, and (2) whether it would not apply so as to include in the valuation machines worked by hand or foot power, and loose tools, tackle, patterns, jigs, and other articles of the same kind; but the witnesses had agreed that in practice no attempt had yet been made so as to extend the principle, and the valuers found no practical difficulty in determining what machinery and plant had to be taken into consideration, and that the Committee had accordingly reported on that basis.

We will pass over the comparison drawn up by the Committee between the law in Scotland and England, and first notice the complaints brought before the Committee as to the existing law and practice in England, and then refer to the recommendations made by the Committee.

The users of English machinery complained (1) that there was a lack of uniformity in the application of the law as applied by different assessment committees, and therefore manufacturers in one Union were prejudiced with competitors in other Unions; (2) that machinery should not be rated at all, or at any rate only some small part of it should be rated, *e.g.*, motive power plant, heating and cooling plant, or, as it had been put in the alternative, only such articles as would not, even if erected by a tenant, be removable by him under the law of fixtures as between landlord and tenant; and (3) that the Scottish competitors have advantage.

As regards the second of the above grounds of complaint, they were based upon the ground of "equity," meaning thereby that machinery users under the existing law bear a share of local burdens which is out of all proportion to either their "ability to pay" or the value of the benefits received and also on the ground that the lighter machinery and plant is in the nature of personalty or chattels upon which other ratepayers do not pay rates. In addition, they alleged that the present system prejudices them with regard to foreign competition.

The recommendations, as summarised at the end of the Report, do not convey so much as the explanations offered for them in the body of the Report, therefore we propose considering them in conjunction with those explanations. In paragraph 10 the Committee state that they are of opinion that the English machinery users have established the existence of a serious lack of uniformity in the application of the law to the valuation of machinery as between the different Unions which ought, as far as possible, to be remedied, and it is suggested that any legislation giving effect to the subsequent recommendations of the Committee should make it clear that all machinery or plant which is to be "taken into account" is to be deemed part of the rateable hereditament in practical accordance with the decisions in the Courts. We infer this means the two decisions above referred to, as the decisions outside those mentioned in the Report are legion. In paragraph 13 it is stated that no doubt exists at the present day as to the machinery and plant which is by law required to be taken into account, nor that "taking into account" means "rating."

The Committee state (par 14) that they are impressed by the fact that since the Hunslet case the burden to which the users of machinery are liable has been substantially increased, and by the fact that at no time previous to that decision had there been any suggestion of a serious nature that the users were not bearing their full share of local taxation. The Committee also refer to the fact that the Royal Commission in 1901 had expressed the opinion that the burden laid upon manufacturers in respect of their machinery should not be increased. Therefore the Committee came to the conclusion that machinery users are entitled to relief, and that that relief should be given by partially exempting from rates a certain class only of machinery and plant. The particulars of this form of relief are set out below, but we may say now that the general principle suggested to be adopted is the division of machinery and plant into two classes: Class I being subject to full rating, but Class II to fractional or differential rating, the general line of division between these two classes being to include in the first "motive powers" such plant and machinery as a landlord would normally provide or everything except "process machinery," the latter falling into Class II. No clear line, the Committee states, can be drawn to distinguish machinery and plant, but the line has to be drawn at some point or other through the combined class of "machinery and plant." These proposals do not apply except in one respect to what are known as "Special Properties," *i.e.*, railways, docks, canals, gas, water, electric light, hydraulic power and tramway undertakings. As these recommendations, if adopted, will take the form of clauses in the draft Valuation Bill, we may, after these preliminary observations, set out the proposed clauses:—

(i) The present practice, which excludes from valuation loose tools, loose plant, and machines operated only by hand or foot power, should definitely be declared to be the law.

(ii) Subject to (i) in valuing hereditaments of the class mentioned below, all such machinery and plant as, not being in law a part of the hereditament, is now by law required to be taken into account in estimating the value of the hereditament, viz., Classes I and II, should be deemed to be a part thereof.

(iii) The value of Class II machinery and plant should be apportioned out of the rateable value of the whole hereditament, and should be stated separately in the valuation list, and such machinery and plant should bear only a fraction of such rates as are indicated below.

(iv) The definition dividing Class I and Class II machinery and plant should be on the following lines:—

Class I (i).—Such machinery and plant (with the structures, works, erections, and appliances supporting or holding them in place), including all engines, motors, shafting, and counter shafting, cables, wires, pipes, conduits, tanks, feed pumps, economisers, mechanical stokers, mechanical chargers, and fuel conveyors as are used, or intended to be used, mainly or exclusively for the purposes of, or directly in connection with, or ancillary to—

(*a*) The creating, harnessing, conveying, controlling, applying, storing, transforming, converting or transmitting any form of power, whether steam, electric, water, gas, oil, compressed air, wind, or other power (but not including portable or travelling power). Provided that no process or other plant or machinery to which any such power after full development up to the stage of application is applied shall be included in this definition.

(*b*) Lighting, heating, cooling, ventilating, draining, supplying water to, or protecting from fire any part of the buildings or land of the rateable tenement hereditament.

(2) (*c*) Lifts and elevators.

(3) (*d*) Railway and tramway lines and tracks.

(4) Plant or combination of plant and machinery which is, or is of the nature of, a building or structure: such as gas holders, blast furnaces, coke ovens, tar-distilling plants, cupolas, water towers with tanks.

Class II.—All plant and machinery now by law taken into account in estimating the annual value for assessment to poor rate other than that which falls within the definitions of Class I.

(v) The rates in respect of which Class II machinery and plant will be entitled to differential rating should be those within the definition contained in section 9 of the Agricultural Rates Act, 1896, which includes the poor rate, general district rate, borough rate, and (in rural parishes) the special expenses rate.

(vi) The foregoing proposals (ii) to (v) should apply to all rateable hereditaments except (then follow the "Special Properties" referred to above).

It is then recommended that as there are certain to be disputes in which class particular items of plant should be included, a small panel of referees should be appointed for de-

termining such questions, with an appeal by special case to the High Court.

The Committee recommend that all hereditaments containing machinery and plant should be valued for rating purposes by a professional valuer, and that such valuations should be made at more frequent intervals than at present, and they suggest quinquennially.

Further, it is suggested that, at least in all cases where machinery and plant are found and valued, the gross value should be abolished and only the net value be recorded. This latter recommendation is summarised at the end of the Report as follows: "The necessity for estimating and recording the gross estimated rental shall be abolished."

The history of the rating of machinery as disclosed in the Report is curious. In 1901 the uncertainty as to what machinery should be included in the valuation and the necessity of not increasing the burden which should be laid upon manufacturers was fully appreciated, and a Royal Commission was appointed and made a report which actually took the form of a Bill (see *The Builder*, April 12, 1902). Nothing further, however, resulted, and, as this Report points out, the uncertainty was cleared up in 1906—not, however, by Parliament, but by the decision of a tribunal in the Hunslet case, which had no power to consider the recommendations of that Commission, and in law decided the point in dispute in a manner directly contrary to the recommendations of the Commission in that it did increase the burden on manufacturers. The House of Lords, of course, had no alternative in the matter, it had simply to decide the effect of the law as it was.

The Scottish Act of 1902 very much followed the lines recommended by the Royal Commission and incorporated in the Bill here, in that "attachment was made the test, and machinery used for motive power was in any case to be included in the valuation.

The Report states that in Scotland there were a number of cases to determine the effect of that Act, but that it is unnecessary now to consider them in detail "because assessors and other witnesses who have appeared before us are agreed that the effect of the Act of 1902 has now been so cleared up by these decisions that in ordinary cases there is no difficulty in deciding what must or must not be included in a valuation."

It would therefore appear that had there not been such procrastination in this country, precisely the same result would have followed here: from 1902 the law would have become settled, the conflicting decisions until 1906 would have been avoided, as well as the decisions following the Hunslet case, and we should have been in the same condition at the present time as is Scotland now, with the law settled on broad lines which the Committee find needs no substantial amendment. The tendency of modern legislation is to split hairs and to be too meticulous, and it will be seen that the recommendations of the Committee must result in legislation of that character. This may be necessary after the lapse of twenty-three years since the necessity of legislation was first pointed out, and we venture no comment on the recommendations of the Committee on the facts and circumstances as they found them; but one of the hindrances to expansion of trade in the present day is the complicated legislation on matters of everyday occurrence—legislation which often no lawyer can give a certain opinion upon and which has to be carried to the Courts for interpretation. The crying need of the present day is to return to legislation on broad principles and to abandon the use of the darning needle in patching up our Statute Books.

New Books.

A book dealing with "The Law Relating to the Architect," by Mr. A. H. M. Brice, Recorder of Tewkesbury, and of the Middle Temple, Barrister-at-Law, will be published immediately by Messrs. Stevens & Sons of Chancery-lane.

YORKSHIRE EDUCATIONAL ASSOCIATION

A well attended meeting of the Council of the Yorkshire Educational Association for the Building Industry was held recently at the Technical College, Huddersfield, the President, Mr. Reeves Charlesworth, F.I.O.B., being in the chair.

The following report of the Curricula Sub-Committee was submitted by Mr. J. B. Coppock, and a full discussion followed. Those who took an active part in the discussion were the President and Alderman W. Birch, J.P., and the following principals and building teachers: Messrs. J. Crowther, J. F. Hudson, W. Healey, S. Carter, J. H. Everett, W. W. Neil and H. H. Burness. The report was unanimously adopted. The representatives of the building industry are to be approached with a view to seeking their active support to the education authorities in their endeavours to improve the character and provision of building instruction in the Yorkshire area.

Report.

After discussing at considerable length the character and extent of the provision made for students of building in Yorkshire, the Committee has been impressed with the need for some co-ordinating and unifying influence, which might help to remove the unnecessary differences which exist in the courses offered and in the examination arrangements made. These differences tend to produce confusion in the minds of the students and of representatives of the building industry, and to hinder the orderly development and extension of this instruction.

It is possible to look upon the Y.E.A.B.I. as a body capable of exercising a unifying influence, since in its formation it brings together all the parties likely to be interested in this matter. It is important to remember, however, that it would probably be ill-advised to attempt to act in any other than an advisory capacity. Quite effective action could be taken by arranging for the free discussion of this problem and by attempting to secure agreement on certain underlying principles, such agreement would no doubt go a long way to help the various bodies concerned to arrive at a satisfactory solution. The Committee feels that such agreement must precede the discussion of details of courses, syllabuses and examination arrangements. It has, therefore, set in paragraph 4 below a set of principles which it conceives to be fundamental to this question under existing conditions. (It is assumed that prior to entry upon the specialised courses described below, all students will have taken a suitable preliminary course of a general character or to have reached a satisfactory standard of general attainment in some other way.)

In referring to the present situation the Committee has particularly in mind the increasing attention which is being given by representatives of the building industry to the problem of technical education. Discussion of that fact tends to support the view that the time is ripe for the careful consideration of the character and extent of the provision made for students of building.

It is not possible to go into details in this document, but the Committee venture to suggest that this aspect of the problem may best be considered under the two heads given below:—

(I.) General Courses.—The provision of suitable arrangements for the instruction of apprentices and others, possessing the capacity, who desire instruction of a general character dealing with the work of the industry as a whole, and suitable for those who wish to prepare themselves for posts of responsibility within the industry, or to enter one of the associated professions.

(II.) Trade Courses.—The provision of similar arrangements for apprentices in the various building trades who desire instruction dealing with their own trade.

(*a*) The main provision made in technical institutions for students of building should consist of a general building course (or courses), including both senior and advanced courses, which deals with the work of the building industry as a whole, but which, in addition, offers opportunities in its higher stages for advanced specialisation in the more important branches of the industry and associated professions.

(*b*) In addition to the general building course (or courses) a series of trade courses should be established, these courses being of a less difficult character than the general course, and dealing more particularly with the ordinary needs of each trade group of apprentices.

(*c*) The relations between these trade courses and the general building course should be such that the more capable apprentices could be transferred, at suitable stages, to the latter course to complete their studies by carrying them to the highest stage of which they are capable and desirous of reaching.

(*d*) The duration of trade courses and the existence of the two types (general and trade) as separate courses would usually depend upon the number of building students in an institution or in a compact area. Only in the very largest institutions would it be possible to maintain completely the two types of separate courses (general and trade) right up to the highest stages. In cases where amalgamation of groups is necessary care should be taken both to preserve the standard of the work done in the general course and to cater for the genuine needs of the students with a more limited aim. We suggest that this difficulty can be most effectively met by the provision of suitable options in the higher stages of the general course.

(*e*) Trade courses would include workshop practice, but it is more difficult to define the position of such instruction in the general course. If this instruction is to find a place in the higher stages of the general building course (for those students who might legitimately ask for such a provision at this stage) the work should be based on the assumption that the acquirement of the necessary foundation of craft-skill has been obtained elsewhere. The treatment given to such a subject should be as wide as possible in its scope, and should include the consideration of such questions as design, cost, workshop organisation, &c., in addition to a consideration of the particular trade in its relation to the industry as a whole.

Further Action.—Following the acceptance of such a set of principles as here set out the Committee suggest that further action may take place somewhat as follows:—

(I). A discussion, with representatives of the local education authorities, the schools, and the teachers, with a view to bringing the various schemes in the county into general agreement with some broad principles as have been here set forth. (Your committee believe that such an adjustment would not be difficult.)

(II). A discussion, with the representatives of the building industry, as to how far such a scheme will meet their immediate requirements of apprentice training and general technical instruction.

(III). Examination Arrangements.—It would not be proper for this committee to suggest that any authority or institution should forego its present powers to institute yearly examinations for the dual purpose of testing the progress of students and of grading them periodically for its purposes of instruction. The Committee does, however, wish to suggest (1) that given a reasonable spirit of co-operation among the various bodies concerned some economy in examination might be effected, and (2) that a special character should be given to those examinations which mark an important stage in the progress of each type of student, such as the examinations at the end of senior and advanced courses and the middle and end of trade courses. A great step forward would be made possible if in some way examinations at such stages could receive the recognition of the building industry both locally and nationally.

BRIDGES AND BRIDGE BUILDING

In the course of a recent lecture at the Norwich Rotary Club, Mr. George Kenworthy, A.M.Inst. C.E., said bridge building was one of the very first constructive arts of mankind, and it was of special interest to note the progressive development in the use of different materials and their effect on shape and design.

There was first the elementary timber beam cantilever bridge (see Diagram 1). Bridges of this type might be traced back in China to time immemorial. From very early times there was also the masonry arch, which had remained an almost unchanged type, that over the Dee at Chester being a very fine example, as also that over the Castle Moat at Norwich, described as the largest mediæval arch of its kind in existence and dating from 1295.

When iron came into use for bridge building the first type of bridge built with such materials was the horizontal-chain suspension bridge. Such a bridge, the original parts of which dated back to 1741, still hung over the Tees at Middleton. Then came the dipped chain with vertical suspenders, and later the cable suspension bridge. Following this the cast-iron arch bridge came into being; the earliest in this country was that at Iron Bridge, Shropshire, built in 1779 and still in use. Then developed the suspension bridge, changed from horizontal to dipped chain wrot-iron links with rod suspenders; and later the cable suspension bridge.

Simultaneously the different forms of cast-iron construction, largely followed by Telford, were taking shape. Old Southwark bridge, with its 246 ft. central span, was his work, as also was the arched deck bridge at Roebuck-lane, Smethwick, built in 1829 and still in use. Meanwhile, wrot-iron was being experimented with in various girder forms. The dates, materials, and type of construction used in the following bridges were of interest:—Stevenson's wrot-iron Britannia tubular bridge (box section), built in 1845; the older cast-iron high level bridge (double deck) at Newcastle, built 1849; Brunel's wrot-iron Saltash Bridge, arched rib and suspension chain type, 1859; and Sir Benjamin Baker's wrot-iron Forth Bridge, cantilever type with hollow circular strut sections, 1890.

From thence onward mild steel came into prominence and the new high level bridge at Newcastle (1906) was a fine example of this type. There were no restrictions in form or design controlling wrought iron or steel bridges, and since their use designs had simply been governed by the exigencies of site and erection, whereas the earlier bridges built of masonry were more or less bound to the arched form. The use of steel in bridge construction had made opening bridges possible, and their development to the swing bridge transporter, the bascule, and the Scherzer rolling lift bridge was a chapter full of engineering and general interest.

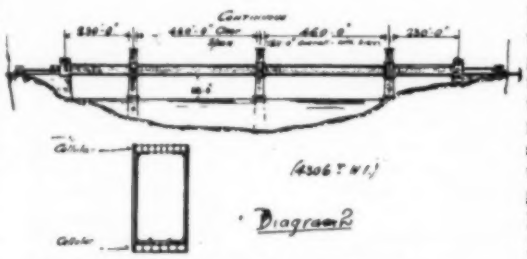
Following and almost simultaneously with mild steel came reinforced concrete, and the latter had been gradually coming into greater use for bridge construction. The fine arch bridge designed by Coignet and built 25 years ago at Luxemburg was perhaps the first large reinforced concrete bridge constructed. Large span reinforced concrete bridges were generally designed as arches, the main ribs being in compression, and thus particularly adapted to this form of construction.

Bow-string and other forms of construction had been used in reinforced concrete bridge design, but though bow-string girders made for economy in materials they were complicated and expensive to construct and shutter. In districts where suitable aggregate and sand were found, bridges of quite considerable span could be built economically in reinforced concrete, and then reinforced concrete—as distinct from mild steel, which perished quickly—required no painting or maintenance.

Except reinforced concrete, materials used in the evolutionary stages of bridge construction had been of a more and more perishable nature, beginning with stone, then brick, and on to cast-iron, to wrought-iron, and lastly to mild steel, each in turn offering less resistance to weather and corrosion.

Iron did not rust in dry air, in pure liquid water in the absence of air, in moist air at constant temperature, or in steam at not much above 100 deg. Cent. The solution of the rust problem, however, must be found not in changing the conditions but in meeting them. Various forms of rustless iron and steel were being experimented with, though at the present time it was only possible, because of the cost, to use it in the manufacture of smaller commodities; but no doubt, sooner or later, a commercial rustless metal for use in rolling sectional iron and steel would be evolved.

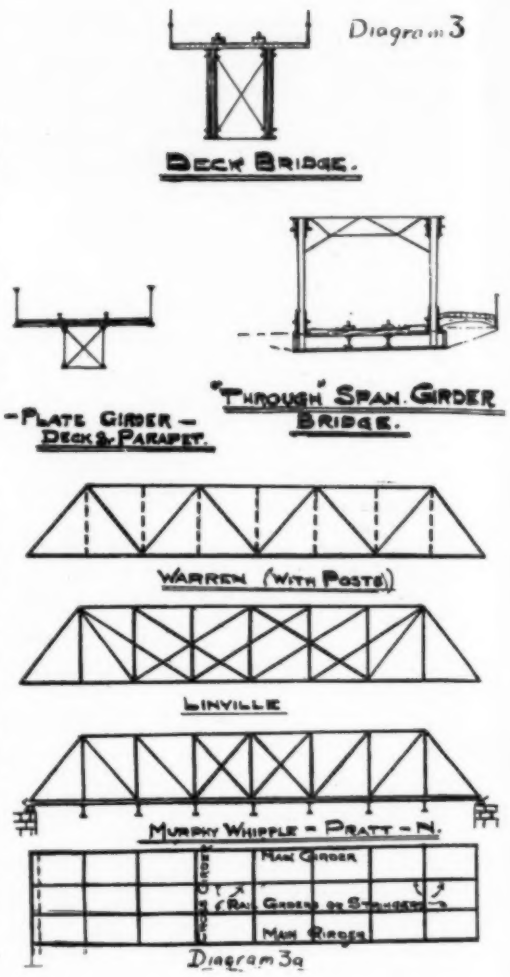
The erection problem in large bridge construction was a very determining factor, and whereas reinforced concrete always required centering and falsework, steel bridges of immense spans were frequently built out from their supports as



BRITANNIA TUBULAR BRIDGE, MENAI.

cantilevers, thus forming their own staging as the work proceeded.

Railway bridges which carried the rail track were known as railway "under" bridges, *i.e.*, bridging a river or road running under them. An "over" bridge referred to a bridge over a line of railway. A "deck" bridge was one where the track was carried at the level of the tops of the main girders. In small spans it was



not unusual to dispense with the cross-girders and carry the rails directly over the main girders. "Through" bridges were the converse of deck bridges, but in this case the track was carried in the plane of the bottom booms of the main girders, on rail girders or stringers, and the loads transmitted therefrom by the cross-girders to the panel points of the main trusses. When the main girders carried the loads direct they were subject to higher impact stresses, and it was not unusual to allow as much as 100 per cent. on rail girders which carried the load direct. A common percentage impact allowance was 30,000 divided by 300 plus the length in feet, which equalled 100 per cent. if length equalled 1. This for through span main girders of, say, 100 ft., brought the impact down to 75 per cent. in main girders. "Plate girder" bridges simply referred to the construction of the girders themselves, and the term was self-evident.

The masonry arch for small road bridges was still incomparably the best for æsthetic appearance, life, and general suitability, but good results could only be obtained if the arch were scientifically designed. Briefly put, the resultant line of stress—found by the usual statical methods of load and force diagrams—must not pass outside the middle third of the voussoirs. The resultant thrust at the abutments was similarly obtained, and the stability of the arch proved.

Live loads, as also unsymmetric loading of any pronounced sort, were difficult to take care of in arch design, and if these were great in proportion to the dead weight it was most important that all conditions should be properly plotted and investigated.

As in the case of the arch the main rib was the principal member and took the greatest stress, so in the suspension bridge the main cable performed the same function; this time, however, the cable was the main member, and in tension, whereas in the arch the rib was in compression. Suspension bridges could be made graceful, light, and economical in design; but similar objections to moving and unsymmetric loads, if these were great compared with the dead weight, applied as in the arch. In an ordinary cable suspension bridge with evenly-

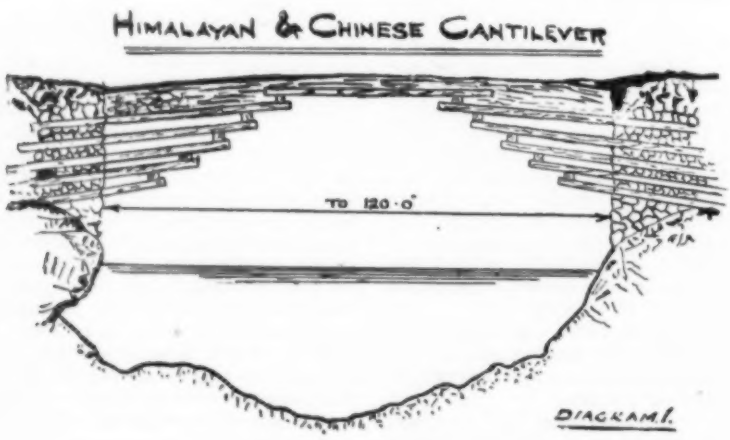
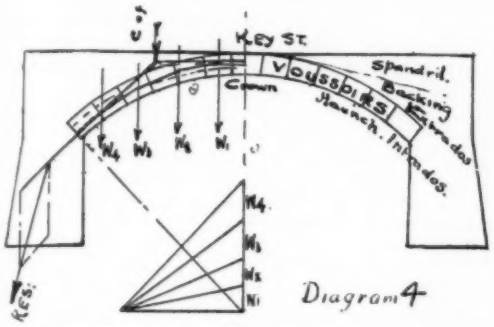


Diagram 5.—Suspension Bridge over Rhone-Vernaison.

distributed loads, the similar beam theory applied as to the ordinary girder, and to the horizontal thrust at crown and skewback in an ordinary arch; but the cable was in tension as against the compression in the rib of the arch. This equalled the total bending moment divided by the dip of the cable at the centre.



Masonry Arch: Middle-Third Theory.

With a uniformly distributed load the dip of the cable followed the course of a parabola; but with a moving load the cable assumed a new curve of equilibrium for each altered position of the load, the more unsymmetrical the loading the greater the distortion of the cable. This was the great disadvantage of this type of bridge: its lack of rigidity vertically and horizontally under moving loads. It was now usual, so as to distribute as far as possible any such unsymmetric loading, to introduce a stiffening girder anchored down at the piers but free to move horizontally. In ordinary spun-wire ropes it was difficult to get a uniform distribution of tension, and parallel galvanised steel wire ropes, suitably wrapped together, were used. In the famous Brooklyn Bridge the main cable was so composed, and was constituted of 5,282 wires, giving an overall diameter of 15¾ in.

Transporter bridges, such as (at Widnes, Newport, &c., were really suspension bridges built on high towers to give headroom and a travelling trolley carried the cage below. They were really opening bridges, applicable to places where low-lying banks made almost any other form out of the question.

In dealing with opening bridges, the swing bridge, the bascule, and the Scherzer opening-lift might be mentioned. The latter was a bridge of special interest, and now generally adopted. Its features were:—(1) Saving in mechanical power when opening. (2) Wind loads could be dealt with more positively than in the bascule bridge, being brought back through the bracings down to the track and foundations. In the bascule the wind stresses must pass through the trunnion pin. (3) Saving in space of clear way. The bridge rolled back, and there was thus no projection beyond the pivot—unlike the bascule, which must have such a projection beyond the trunnion pin. Keadby Bridge (G.C. Rly., near Gainsborough) was the largest bridge of this type in this country. In this bridge 3,000 tons were lifted through an angle of 82 deg. in two minutes.

(To be continued.)

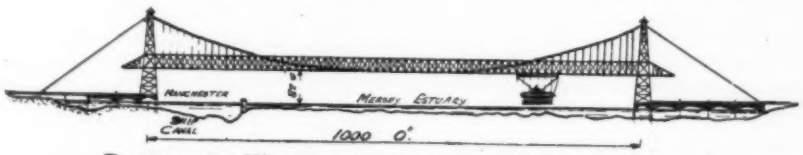


Diagram 6.—Widnes and Runcorn Transporter Bridge.

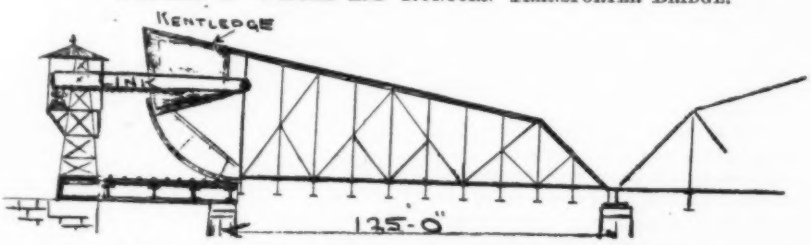


Diagram 7.—Sherzer Span over Blue Nile, Khartoum.

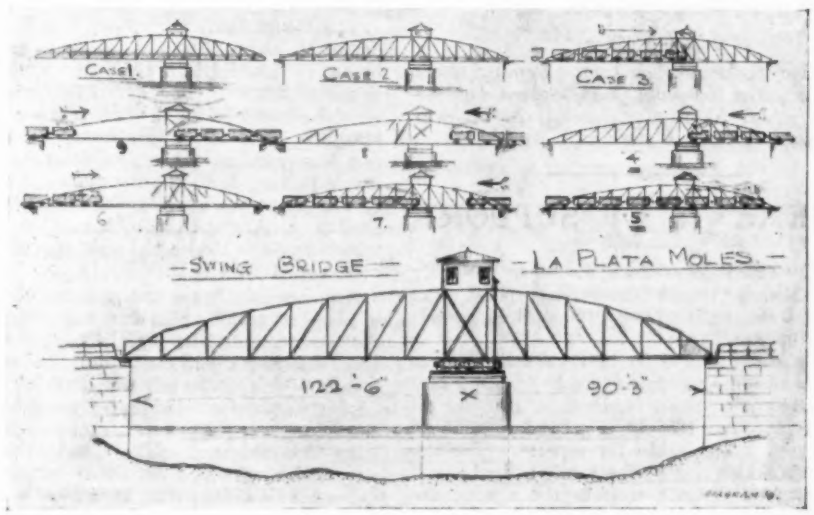


Diagram 8.

THE GREY FRIARS OF CANTERBURY*

There is something very intimate and appealing in the advent of the Barefoot Friars in the early autumn of the year 1224—700 years ago. They came as a shadow as grey as their cloaks, but they came to stay, and for more than three centuries they gave their all and asked for nothing. Imagine the old Dover road, part of the Roman Watling-street—not the eleven mile section, 100 ft. wide, reconstructed and opened up but yesterday between Dartford and Rochester—and think of it not as the hard metalled "street" as made and traversed by Cæsar's legions, but as the degenerate miry lane that it would have been seven hundred years ago, and along this lane, "full of pitfalls and sins," in silence, but for their occasional singing of the "Bridal Song of the Virgin," on Tuesday, September 10, 1224, and the eighth year of the reign of Henry III, came the nine missionary Franciscans—five mere laymen and four clerics, of whom only one was a priest. How they fared on reaching Canterbury we have but meagre details, beyond the fact that they were hospitably entertained for two days at the Priory of the Holy Trinity by Prior John of Sittingbourne; after which four of them set out for London, whilst the other five went to the Priests' Hospice till they found themselves a dwelling place. How they settled on the Island of Binnewith—the Isle of Withies—enclosed by the main river and backwater of the Stour in the angle between Stour-street and St. Peter's-street, and how they built their house and what St. Francis said to them about it in a vision, and how they and their successors fared till their dissolution under Henry VIII, is well and concisely told in the pages of Mr. Cotton's book.

The three outstanding and dominating characters in the church history of the twelfth and thirteenth centuries were the Spanish Dominic, Bernard of Clairvaux, and Francis of Assisi. Dominic, with fiery ardour, sought to bring the Church back to health. Bernard the arbiter, the official referee of Europe, whenever called from the seclusion of his monastery, by his transparent honesty and unerring judgment brought sanity to the council board and never failed to adjust national and international complications. The work of Francis of Assisi was a thing apart and cast in another mould. That broad-minded historian, John Richard Green, says that "The life of Francis falls like a stream of tender light across the darkness of the time. . . . He strips himself of all, he flings his very clothes at his father's feet, that he may be one with nature and God. . . . Strangely as the two men (Dominic and Francis) differed from each other, their aim was the same—to convert the heathen, to extirpate heresy, to reconcile knowledge with orthodoxy, to carry the Gospel to the poor." It is of the missionary disciples of this great missioner, who landed at Dover two years before their master's death, their trials and tribulations, their triumphs and failings, that Mr. Cotton's book tells us. As honorary librarian to Canterbury Cathedral, Mr. Cotton would, in the nature of things, be pre-eminently in a position to write such a book, and this "Extra Series, vol. 2," makes a valuable addition to the vols. published under the title of "British Society of Franciscan Studies."

St. Paul's Bridge.

At a recent meeting of the London County Council, Mr. E. L. Meinertzhagen stated that further deliberation on the St. Paul's Bridge scheme had been deferred by the City Corporation pending the report of the London and Home Counties Traffic Advisory Committee, to whom it had been referred by the Ministry of Transport. He added that the Bridges Sub-Committee had instructed their officers to report on Sir Reginald Blomfield's scheme for a bridge between Waterloo and Charing Cross bridges, together with other schemes for a bridge at Charing Cross.

* "The Grey Friars of Canterbury." By Charles Cotton, O.B.E., F.R.C.P.E. (Manchester: The University Press).

THE WEEK IN PARLIAMENT

Westminster, *Wednesday.*

Scottish Housing.

During a debate on the Scottish Estimates, Captain Elliot, Parliamentary Secretary to the Scottish Board of Health, said that in Scotland, under the private enterprises clauses of the 1923 Act, plans had been approved for the erection of 6,349 houses. Of these 1,500 had been completed and 3,300 were under construction. By the local authorities proposals had been submitted for 7,963 houses, but of these 1,700 had been transferred to the 1924 Act. Under the slum clearance section of the 1923 Act, they had so far 7,061 houses to be dealt with, making a total of something like 19,000 houses under the various sections of the 1923 Act. Under the 1924 Act, 7,136 houses had been approved or were going ahead; in all, 26,000 houses approved and under construction under the two Acts. It was the intention of the Secretary for Scotland to press on the provision of houses by whatever Act could be made to yield them.

Bricklayers.

Sir A. Steel-Maitland informed Mr. T. Thomson that the number of bricklayers engaged in the building trade in Great Britain who were insured under the Unemployment Insurance Acts was 68,924 at December, 1913, and 60,690 at July, 1922. Similar information relating to bricklayers engaged in other industries was not available, but according to the Census of Population the total number of bricklayers in 1911 was 99,549, and in 1921 87,574. These two figures might, however, be affected to some extent by changes in classification. It was estimated that the average production of bricks for the three years prior to the war was 2,805 million per annum. It was estimated that at the present time the output was at the rate of about 5,000 millions per annum.

Three Months' Progress.

Sir K. Wood informed Mr. H. Williams that particulars as to progress of house building were obtained half-yearly as regarded houses erected by private enterprise without State financial assistance. As regarded State Assisted houses, returns were obtained monthly. The latest figures available were for March 1 last. During the three months ending that date 21,758 houses were commenced in England and Wales in connection with State-assisted schemes, 21,346 were completed, and 54,586 were under construction at the end of the period. The corresponding figures for the same period in 1924 were 16,042, 4,970 and 27,742.

New Methods of Construction.

Lieut.-Commander Kenworthy asked how many schemes for building houses by new methods of construction, other than brick, had so far been sanctioned.

Sir K. Wood said that returns, unfortunately incomplete, obtained from local authorities at the beginning of the present month showed that arrangements had been made for the erection by local authorities or otherwise in subsidised schemes of more than 9,000 houses in various forms of concrete or other new methods of construction. The Minister hoped that when the next return was obtained further information would be available as to the numbers of houses to be erected by other methods than brick construction. Local authorities only required the Minister's specific approval to the adoption of a method other than the ordinary method of construction where the method proposed was not one for which a sixty years' loan would nominally be allowed.

Mr. Hurd asked the Minister of Health if he was aware that the definition of an agricultural parish in the Housing Act of 1924 excluded many agricultural parishes, as, for instance, in the home counties, from the encouragement which the Act was supposed to give to house building in such areas; and what steps he proposed to take to give effect to the intentions of Parliament?

Sir K. Wood said the clause defining agricultural parishes was debated at considerable length during the passage of the 1924 Housing Bill, and amendments were made which had the effect of considerably widening the scope of the clause as originally drafted. The Minister did not think it could be said, therefore, that the section did not carry out the intentions of Parliament, and he was afraid he could not at present contemplate introducing further legislation on the subject.

Brick v. Steel.

Mr. Stephen Mitchell asked the Minister of Health, in view of the fact that the life of a stone or brick house would probably be considerably longer than that of a steel house, and that for both types of houses an equal grant was given, and in order to encourage those who preferred to erect the more permanent type of dwelling, whether he would be willing to consider the question of increasing the grant for houses of this nature.

Mr. N. Chamberlain replied in the negative. Houses were at present being erected by the ordinary method of construction up to the full capacity of the house building industry and an increased subsidy for this type of house would not result in a greater output of houses.

The Weir Houses.

Sir H. Brittain asked the Minister of Health whether he had yet received information from anyone occupying one of the Weir houses as to their general comfort and suitability as compared with houses built of other materials.

Sir H. Barnston, replying for the Minister, said he understood that one of these houses had been in occupation for some time and had been found satisfactory.

Direct Labour Schemes.

Sir H. Barnston informed Mr. Kelly that up to March 1 last 53 local authorities in England and Wales, and two private bodies under Section 3 of the Housing, &c., Act, 1923, had commenced work by direct labour on schemes approved under the Housing Acts of 1923 and 1924. The numbers of houses in such schemes were 4,531 and 44 respectively.

Rebuilding of Crown Properties.

Captain Garro-Jones asked the Minister of Agriculture whether he would undertake that no rebuilding or repairs, except such as were urgently necessary, should be carried out in future on Crown properties until the housing shortage was overtaken.

Mr. Wood said that due regard would be had to this suggestion where such work would be likely to conflict with house building requirements, but work of the kind referred to provided employment for a large number of men in the building and allied industries who would not in any event be employed on house building, and in the circumstances he could not, therefore, give the undertaking suggested.

Royal Assent.

The Royal Assent has been given by Commission, to the following Consolidation Acts:—Housing Act, Housing (Scotland) Act, Town-Planning Act, Town-Planning (Scotland) Act.

EASEMENTS OF SUPPORT

In the recent case Sack *v.* Jones (*Weekly Notes*, March 7), an interesting point was raised as the right to support acquired by adjoining houses.

The plaintiff and defendant were the lessees of two adjoining houses held under leases granted by a common landlord in 1888 for 96 years from June 1887 at a ground rent of £5 the lessees being liable for repairs. The defendant's house was at the north end of a terrace with an outside wall to the north; the plaintiff's house adjoined it, being separated from it by a party wall. The defendant's house was in the occupation of a tenant of hers, the plaintiff's was in her own occupation. It was admitted that mutual rights of support and mutual party-wall rights existed as between the plaintiff and defendant with reference to the two houses. Certain fractures and cracks had appeared in the plaintiff's house, which had become more serious, and other structural damage had occurred. The plaintiff attributed this damage to the fact that the party wall was leaning towards the defendant's house, and this inclination of the party wall she attributed to the fact that the defendant's house was subsiding outwards to the north and pulling the party wall with it. The outside wall of the defendant's house was inclined slightly outwards, but the evidence appears to have been that the house was in good repair with only a few unimportant cracks in it such as were usual on clay soils, and that apart from the slight outward inclination of the outside wall it was in good condition.

The point of law involved in this case was, however, argued on the assumption that even if the allegations put forward by the plaintiff in her claim were substantiated, yet she had no cause of action, therefore it is necessary to state what those allegations were. It was complained in the action that the defendant's house, and particularly the outside wall, had fallen into disrepair, settled, and subsided, and by reason thereof and the tension put upon the party wall in consequence thereof, the party wall had been deflected from the perpendicular, with the result that damage had occurred. It was also alleged that the defendant was not affording proper lateral support to the plaintiff's house and the party wall, and that the tension was continuing, and would cause further deflection and damage, and an injunction and damages were claimed. The judge at the trial is reported as saying that on the evidence it was impossible to come to a definite conclusion as to the cause of the condition of the party wall and the damage; it was consistent with an independent subsidence of the party wall itself, and thus, at all events, the plaintiff had failed to discharge the onus laid upon her of proving that something in connection with the defendant's house had pulled over the party wall and caused the damage; but assuming that the plaintiff had established her allegations, she would still have no cause of action. It was admitted that she could not rely upon the easement for support simpliciter, and therefore it had been suggested that the defendant was guilty of nuisance, but the defendant had done nothing more than use her house as a residence for her tenant in accordance with the intention of all parties at the time the leases were granted (see on this point Jones *v.* Pritchard, 1908, 1 Ch. 630), and although the defendant's house was subject to an easement of support, she was under no obligation to the plaintiff to keep her own house in repair for that purpose (Colebeck *v.* Girdlers Company, 1876, 1 Q.B.D. 234), Chauntler *v.* Robinson (1849, 4 Ex. 163).

The Court said no authority had been produced to show that the falling away of the house as described in this case would give a cause of action. The distinction must, however, be borne in mind between an act of nonfeasance, as in allowing a house merely to fall out of repair, and an act of feasance in altering or pulling down the structure. An example of the latter act is to be found in the case of Dalton *v.* Angus, 1881 (App. Cas. 740), in which case the House of Lords approved Bower *v.* Peate (1865 1 Q.B.D. 321).

Any act creating a nuisance would also give a cause of action. In this case, for instance, the argument of the plaintiff appears to have been that as it would constitute a nuisance if the owner of his house allowed part of it to fall on his neighbour's land, so this inclination of the house away from the adjoining house constituted a nuisance. The Court said the first proposition was not disputed, but the second did not follow from it. It is hardly necessary to remind our readers that the case we have been considering was a case at common law and not a case under the London Building Act.

ARCHITECTS' & BUILDERS' INQUIRY BUREAU

We are glad to give questions and answers but cannot accept responsibility for contributed replies, especially on legal matters.

May we appeal to our correspondents to submit their queries on paper of a size easily filed, and written as legibly as possible, or better still, in typewriting?—ED.

Agreed Percentage.

[REPLY TO "W. L. W." MARCH 27.]

[Under Section 157 of The Public Health Act, 1875, an urban authority is empowered to make by-laws with respect to certain matters; and it has been held that a by-law to the effect that no new dwelling house shall be let or occupied until the drainage shall have been made and completed, or until a certificate of an officer of the council shows the house is in every respect fit for human habitation has been obtained, is a reasonable one to be made under the said section. The officer giving the certificate cannot exceed legal demands or impose conditions which could not be enforced. All he is entitled to do is to see that all by-laws and any Acts of Parliament applicable thereto have been complied with. He is not concerned with those matters over which (however desirable he may think they are) the local authority has no control.

In this case the habitation certificate was given before the work referred to was carried out; and from the foregoing it will be seen that it has no bearing on the question raised, nor does the value of the class of property enter into the question. It is not one of repairs in connection with a lease, but a question concerning the intentions of the parties to a contract for a new house. The contract admittedly made no mention of the painting and decorating of the house, but did provide for the execution of work by any other artist or tradesman the employer chose to employ.

The contractor was to be paid for the work under the contract by a percentage on the net cost of the building. Apparently he was not to be paid any percentage on the cost of work done by those tradesmen, and others, chosen by the employer. This was not a lump sum or entire contract in which the contractor, being willing to, but being prevented from, completing the contract would in general be entitled to the whole amount of the contract as a liquidated demand, also, in certain circumstances, damages for breach of contract. It was a contract, the terms of which require careful perusal. On the facts as given it does appear that there was no breach of contract on the part of the employer; and that if, as appears, he substituted for the original contractor (in respect of the internal painting and decorating) a new contractor, he was entitled to do so. What the employer did would not have entitled the contractor to abandon the contract, or seek any remedy in damages in a matter for which he had given no "consideration." Applying the above to the question asked, and on the facts given, it seems clear that the original contractor could not claim the agreed percentage suggested.—ED.]

Gas Fumes.

[REPLY TO MR. H. TEELING SMITH, MARCH 27.]

SIR,—The best means of disposing of the fumes from a gas stove is the provision of a metal hood connected by a flue pipe to a separate brick chimney flue, if available, or into an existing flue if convenient, or failing either into a baffled airbrick discharging into the open air. In either case, if there is at times any return draught it will be intermittent, so that conditions are at any rate an improvement upon a case where there is no such provision. It is quite safe to discharge into the roof space where there is always ample ventilation through the tiles, but the practice of discharging into the wall cavity is not to be recommended, as these are not always adequately sealed round window openings and ends of floor joists, and there is the danger of harmful fumes discharging into other rooms of the house. Gas fumes are certainly unhealthy if not so properly disposed of and they further are apt to dry up the atmosphere of the house.

"HEALTH."

White Walls.

[REPLY TO MR. P. PACKMAN, MARCH 27.]

SIR,—There are some classes of pressed bricks which yield up salt from the clay for a considerable number of seasons. The result is a white deposit upon the surface, which disappears during hot, dry spells, but appears again after the rains. This process continues until the salt has been entirely yielded up, when the natural colour of the bricks becomes permanent. There is no known cure, and it is necessary to select for facings a brick made of clay that is free from salt. If Mr. Packman is a layman, he has a legitimate cause of complaint against the builder who has advised him to adopt for facings bricks that are not suitable.

"BRICKS."

Improved Hollow Walls.

[REPLY TO MR. F. G. BAILEY, MARCH 27.]

SIR,—Mr. Bayley will find the information he requires on reference to the catalogue of the recent Ideal Homes Exhibition.

"VISITOR."

Cleaning Brickwork.

[REPLY TO MESSRS. NORTHFIELD & CO., MARCH 27.]

SIR,—It is possible that the steam scrubber would remove the weather marks complained of by your correspondent, but there are many classes of brick which would not stand after the weathered surface had been so treated and care should be taken and competent advice sought on the spot before any such treatment is finally adopted.

"CAUTION."

Norwegian Granite.

[REPLY TO "LONDONER," APRIL 3.]

SIR,—With reference to "Londoner's" inquiry in your issue of the 3rd inst., we beg to inform you that the *Morning Post* Building, Strand, Aldwych, W.C., is faced with Norwegian granite, which was supplied and fixed by Messrs. A. & F. Manuelle, Ltd., 4, Throgmorton-avenue, E.C. 3.

"M. & D."

Bond in Brickwork.

[REPLY TO PROGRESS, APRIL 3.]

SIR,—In the district in which I have been recently practising I have noticed in frequent use a local brick bond that would seem to fill the bill, and achieve that which your correspondent is seeking. It consists of four courses of stretcher bond in half-bond followed by a course of headers. It is, of course, used only for 9 in. walling, but for this class of work I am convinced it is at any rate as strong as any other brick bond, if not stronger, and it can be laid with very much more speed than either English or Flemish. It should not be confused with garden wall bond, in which a series of stretchers alternate with a header in the same course.

"INTERESTED."

Mortar for Masonry.

[REPLY TO BUILDER, APRIL 3.]

SIR,—If your correspondent allows for one eighth of the bulk of the walling as mortar he will not be far out. This amount appears heavy in comparison with the fine joints used with this class of work, but it must be remembered that the backs of the facings are rough and will swallow up a large proportion of the mortar.

"MASON."

Schedule and Total.

SIR,—I have often noticed in examining the priced schedule of a successful contractor that when the total of the schedule totals, amounts to an odd amount—say, for the sake of argument, £985 2s. 3d.—that the contractor completes his tender by turning this to a round figure, adding, "Say £980."

The effect of this reduced total upon the various schedule rates is, of course, in such a case infinitesimal, but the fact remains that the schedule rates will become slightly in excess of their just relation to the contract figure, and if this practice were exaggerated it might be possible on a variation job in which extras rather than omissions were anticipated, for the measured work to price out at a figure that would be excessive in proportion to the original contract figure. Could any of your correspondents tell me whether such a practice as first quoted, maintains the contract schedule of prices as good in law, and if so, what would be the limit of its interpretation?

"STICKLER."

Roof Truss.

SIR,—I have had a problem set to me regarding the designing of a roof truss, which is to be constructed of pitch pine, over a span of 52 ft. Could you inform me what is the crippling stress of pitch pine in compression and tension? In text books I have in my possession they are given by various authors from 4,700 to 6,700 lbs. per sq. in., and I should like to have your opinion as to the safe average figure to use in making my calculations for the truss, and for use with Rankines' formulæ for pillars and stanchions.

"R. D. J."

[The ultimate strength of timber varies according to the relative direction of the stress and grain. Also timber is very far from being homogeneous; natural defects, such as knots, also defects due to seasoning, effects of sun's heat, &c., all contribute to produce a wide variation in the strength of timber. For this reason our correspondent would probably find a wide variation in the scantlings proposed for any definite scheme by experts.—ED.]

Party Walls-Wireless.

[REPLY TO HOUSE-OWNER, APRIL 10.]

SIR,—Under "Williams *v.* Bull" (Q.B. 1890) it was held that a wall occupied for part only of its height by a building on one side is a party wall for the whole of its height. Why not move the aerial away from the party wall?

GILBERT H. LOVEGROVE.

Colour-wash.

SIR,—I propose finishing some new houses externally with cream colour-wash direct on to the brickwork (hard wire-cuts in lime mortar), and should be much obliged by any advice as to the most suitable materials, &c.

"WHITEWASH BRUSH."

Scuntion.

[REPLY TO "STUDENT," APRIL 10.]

SIR,—According to the latest edition of Webster's Dictionary, Scuncheon is derived from old dialect French and means, "The part of the side of an opening from the back of the reveal to the side face of the wall usually forming in the masonry a rebate in which the wooden frame is set." No doubt Scuntion is colloquial spelling.

GILBERT H. LOVEGROVE.

SIR,—"Scuntion" (or Scontion) is a masonry term, and means the stones forming the inside angle of the jamb of a door or window opening as found in old churches and castles.

F. J. FORSTER, A.R.I.B.A.

SIR,—With reference to the query in your issue of April 10, "Scuntion" is a term used in the North for the undressed quoins forming the openings in internal walls and alternating with the header quoins of external walls to form the interior salient angles of windows. The spelling varies. In this district the word is "scunch."

G. REAVELL.

[We have received further replies to this query from "T. H. R.," Mr. John M. Fife and Mr. John Wilson.]

THE BUILDING TRADE

ARBITRATION IN BUILDING DISPUTES

By W. T. CRESWELL, Lic.R.I.B.A., Assoc. (late Fellow) Surveyors' Institution, F.R. San.Inst., Barrister-at-Law.

XI.—THE AWARD.

II.

The award must be certain, consistent, unambiguous, uncontradictory, and unconditional; and unless a contrary intention is expressed in the submission, then, under Schedule I (*h*) of The Arbitration Act, 1889, "The award to be made by the arbitrators or umpire shall be final and binding on the parties and the persons claiming under them respectively."

All Differences in the Submission must be Determined.

The award must determine all the differences referred to in the submission; and the Court presumes that the arbitrator or umpire has by his award determined only those matters referred to him, unless the contrary can be proven. If it does not decide the differences referred to in the submission, then the award is bad and unenforceable. Also, an award which purports to determine matters not comprised in the submission is bad and unenforceable. If, however, the part dealing with matters submitted can be severed from those not submitted, the former would be held good and valid. In Selby *v.* Whitbread & Co. (1917), 1 K.B. 736, McCardie J. said, "It is the duty of the Court to support rather than to destroy an award."

When neither of the parties have adduced evidence at the hearing upon any point in dispute, the award cannot be impeached by either of the parties, on the ground that such point is not specifically dealt with in the award.

In Lawrence *v.* Hodgson (1826), 1 Y & J 16, the arbitrator by the submission was to direct at what price A or B should purchase a piece of land; and he directed that A or B should purchase it at a certain price. The Court set aside the award on the ground that the arbitrator, in addition to ascertaining the price, should also have decided which of the two was to purchase it. In *re* Tidswell (1863), 33 Beav. 213, the arbitrator had to award and to apportion a trust estate among certain persons entitled thereto, and found that a certain sum was due from a party and directed him to pay or account for it to the trust estate; it was held that the award was uncertain, since it ought to have specified to whom and in what proportions the money should be paid. In Price *v.* Popkin (1839), 10 A & E 139, when a landlord had removed some gates, locks, bolts and fastenings from the demised premises, and the arbitrator had ordered the tenant to put up other gates, locks, bolts, and fastenings in the place of those removed, the award was held bad for uncertainty, as it did not show what fixtures had been removed, or specify the nature, quality or price of those which were to be substituted.

In Stonehewer *v.* Farrar (1845), 6 Q.B. 730, an award directed that the defendant should take all proper and reasonable precautions and measures to prevent the water of a stream being rendered unfit for the use of the plaintiff, and that all refuse waters from the defendant's works and at the latter's expense, be passed through filters so as to be thereby effectively purified and cleansed, so far as the same could be purified and cleansed by the ordinary and most approved process of filtering. It was held that the award was bad because of its uncertainty, in not describing or ascertaining the precautions which were to be taken. In *re* Tribe and Upperton (1835), 3 A & E. 295, an award was set aside because it did not clearly determine the main question in the reference, *viz.*, whether a certain agreement should be rescinded. In Lock *v.* Vulliang (1833), 5 B & Ad. 600, the arbitrator wrote a letter as follows: "To meet the circumstances of the case in a liberal manner, I propose that B should pay A £10"; and it was held that this was not an award, for there was no decision expressed, but only a recommendation. But in Whitehead *v.* Tattersall (1834), 1 A & E. 491, the words, "I have surveyed and estimated the several works necessary to be done in repairing the dilapidations to the house and find the same amount to £55 5s.," were held to be conclusive and an award. In Smith *v.* Hartley (1851), 10 C.B. 800, where there was an award in plaintiff's favour, and a direction that the defendant was to pay the balance, it was held that this was equivalent to an order to pay the balance.

The Form of the Award.

In making the award no special or technical words are compulsory or essential. It is sufficient if the arbitrator's meaning and intention is clear and decided. The award may embody maps or other documents, and may, in fact, be in the nature of an opinion; but if it differs from the submission, it is void both at law and in equity. But collateral writings not attached to, or referred to, in the award, cannot form part of it. See Produce Brokers' Co., Ltd. *v.* Olympia Oil & Coke Co. Ltd. (1916), 2 K.B. 296; (1917), 1 K.B. 320 C.A.

Recitals.

The award need not contain any recitals, but it should contain all necessary directions for its proper performance within the scope of the submission, and be reasonable and possible of performance. A mis-recital does not make the award bad.

An Award cannot be Altered.

No alteration can be made in an award when it is made, though under Section 7 (*c*) of the Acts, the arbitrator has power "to correct in an award any clerical mistake or error arising from any accidental slip or omission." He can, therefore, reopen his award in order to make a correction without the order of the Court. But when an arbitrator has made a mistake in the award and admits it, the Court will generally remit the award to him for correction, if the mistake is one that clearly shows that the written document does not express the arbitrator's true intentions.

The Court has no power to alter or amend an award. It can only get the award set aside or remit it to the arbitrator. In Pedler *v* Hardy (1902), 18 T.L.R. 591, an arbitrator exceeded his jurisdiction, and it was sought to prove that it was an accidental slip or omission which he could correct. But Channell J. doubted whether it was such an error as came within Section 7 (*c*) of the Act (*ante*), and gave judgment for the defendant on the ground that the arbitrator had exceeded his jurisdiction. In Sutherland & Co. *v.* Hannevig Bros., Ltd. (1920), 1 K.B. 336, an arbitrator awarded certain costs to one of the parties, and on an enquiry being made to him by the successful party as to whether certain items were payable by him, the arbitrator stated that he had made an error in writing his award and had amended it so as to carry out his original intention, and he delivered an amended award which included the items in question. It was held that in making his original award, he had not made "an error arising from any accidental slip or omission" within the meaning of Section 7 (*c*) of the Act, but that what he had done in making the second award was to expound the first one; and that an arbitrator has no power to do.

Title to Land not Passed by the Award.

The title to land will not pass by the award, therefore, if the dispute relates to land and the arbitrator finds it necessary to award a release or conveyance in order that his award may be final, he should state the nature and character of the instrument, also who is to prepare and pay for its preparation, since he need not prepare it himself.

The parties may, however, agree that the award of the arbitrator shall be conclusive as to the right of land which is in controversy between them, and an award made under an Act of Parliament may have the effect of transferring property as between the parties.

The Award Cannot Bind Stranger's Interests.

If an arbitrator binds the interests of strangers he exceeds his authority, since the submission only refers to him questions between the parties thereto. In Tarner *v.* Swainson (1836), 1 M. & W. 572, an award ordered a party to put up a stile and footbridge on land belonging to a stranger, and the Court set it aside, though it instructed that had the terms of the award been conditional on the consent of the owners and occupiers of the land being obtained, the award would have been valid. In Lewis *v.* Rossiter (1875), 44 L.J. ex 136, it was held that in ordering a person to repair a river bank not his own property, nor a place to which he has a right of access is an invalid award. But if it can be gathered from the submission that there was an undertaking by the party ordered to do the act on the stranger's land to procure his consent it is valid. See Nicholls *v.* Jones (1851), 6 ex 373.

SHORTAGE OF APPRENTICES

A statement was recently made by Bailie Fish, in connection with a circular from the Board of Health with regard to the augmentation of skilled labour, at a meeting of the Eastern District Committee of East Lothian County Council, held in Dunbar, in the course of which he said he had considered this matter very closely in relation to the proposals for the erection of new houses. He had also been in consultation with master builders, and had ascertained that for years there had not been a single apprentice going to the mason trade in Dunbar. In the plasterer and slater trade there had been only one apprentice for a number of years, and that individual was still in his apprenticeship. It was altogether a remarkable condition of things. Employers who were agreeable to take on adult apprentices to become masons or bricklayers required to pay full labourers' wages from the outset, namely, £2 12s. 6d. per week, and that, of course, was impossible. Master builders found that such men were not worth the money, and it was impossible to keep one man looking at another and pay him £2 12s. 6d. per week. If a man honestly did the work of a labourer he was, of course, worth his pay, but he could not do so as an apprentice learning his trade. At the end of the third year he understood the adult apprentice would receive 90 per cent. of a journeyman's wage, and the following year the full wage. Such a scheme was impossible, and the master builder would co-operate only if Government assistance was given, say, 50 per cent. paid to the adult apprentices, and even then the employers said it would not be a business proposition. In connection with the Dunbar burgh scheme of 20 houses, there had only been one apprentice employed, and that apprentice was a plumber. Lads were learning the joinery and plumbing trade, but builders could practically get no apprentices.

Streatham Development Scheme.

The Streatham Tenants, Ltd., 406, High-street, S.W., propose to develop a "garden city" at Greyhound-lane and Norbury, S.W. An area of about 58 acres is to be covered by 370 two-story flats and semi-detached houses. Concrete methods of building are to be employed, under the supervision of the architect, Mr. Douglas Wood, F.R.I.B.A., 35, Craven-street, W.C.1.

BUILDERS' ACCOUNTS AND COSTS*

The necessity for a proper and businesslike system in connection with the keeping of builders' accounts and costs is now being realised, and any book which presents the particulars of a simple but satisfactory system is bound to be a welcome addition to our bookshelves. In the not very distant past the general rule among builders—especially those in a small way of business—has been to carry on with the practical execution of the work in hand without much regard to the actual cost as compared with the estimated cost, and in the event of a loss being sustained it was a case of "bad luck." The keenness of competition, the increased cost of building work, and the general trend of methods in the industry have led to the elimination of the builder who does not conduct his business with some system, and the old rule-of-thumb ways are being rapidly superseded by a sound business arrangement inside the office. It will be quite obvious that the keeping of proper accounts and costs is an absolute necessity if a business of any nature is to be run on successful lines, and this is especially true in the case of the building industry.

The first stage in any contract is the preparation of an estimate by the builder, and this estimate is essentially the work of the office department, and in order to prepare the figures records of past work must be available in order to arrive at reliable unit costs. If the contractor is fortunate enough to obtain orders for work without the necessity of giving an estimate the charge to the building owner must then be based on actual cost plus a percentage for profit, and the keeping of accurate records is even more important, as the builder cannot prepare his statements without them, and the architect will raise queries which must be answered by satisfactory evidence. It must be borne in mind that the cost of building work does not consist entirely of materials purchased and wages paid to workers on the site of operations, but many other factors are involved, such as transport charges, fees, supplies of water and power, and establishment charges, while discounts, bank charges, and other items will also affect the profit and loss account of the builder. Without a complete system these and similar items cannot be properly traced and allocated, and failure to keep track of what may be termed auxiliary charges may involve the builder in substantial losses which will not be apparent. The office department and the field force in a contractor's business must co-operate thoroughly, and each section must realise the advantage that will result from compliance with the letter and spirit of the system that is laid down for the direction, control, and recording of the work in hand. The practical man on the site of operations is inclined to look upon the keeping of records and returns generally as a nuisance and a waste of time, and it requires considerable persistence and patience to bring both sides of an organisation into line.

Mr. Legge, in the book under notice, has laid down a complete system for the guidance of the builder, and while the particulars given are applicable to a large organisation they will appeal especially to the man who is carrying on his business with a small or moderate size staff, because a large organisation will include thoroughly trained book-keepers and accountants who will require very little guidance in evolving a satisfactory system. The author anticipates criticism, but pleads that the work is essentially a pioneer one, and, while this fact is borne in mind, it is assumed that suggestions and comments will be useful both to the author and his readers, because the pioneer must be followed and assisted by others if the pioneer work is to be fruitful of the best results. Mr. Legge has divided his treatise into three sections the first dealing with system for builders, the second is devoted to book-keeping, and the third covers the costing system. Of these three sections the first is quite small and general in character, being in the form of hints on organisation without much detail. The work laid down, however, covers most of the essential points. It is suggested that instructions by the chief to his administrative assistants should never be merely verbal or telephonic, but every communication must be covered by a written confirmation. This is most unusual, and it is very doubtful if such a system can be justified. Considerable correspondence would be entailed, and generally evidence of what may be termed internal or inter-departmental instructions should not be necessary as no question of a claim against a third party can be affected by the production of such evidence, and the question of responsibility is one for the chief, who must be able to rely on his assistants even if the instructions given by him are verbal only. With regard to routine instructions, the system advocated of giving a copy to each responsible man for his own personal reference is a good one, but it is not desirable to issue all notices and instructions in this way, and the method of posting notices of a certain character in the messroom or at the time-recording station is advisable, as no individual worker can then claim that he was not conversant with the notice issued.

In dealing with registers for staff and machinery, the author gives some suggestions for the particulars that should be entered, but there are some items which can usefully be added. In the staff record it is a good plan to give sufficient particulars to indicate the training and career of the individual, as any re-organisation of the staff will often necessitate the selection of men for higher positions, and the suitability of any particular individual can be judged by his previous progress. In the case of the inventory for large machinery, it is an excellent plan to include particulars of insurance with policy number, and the details of all repairs made, with the date, cost, and reasons for breakdown, as the reliability and maintenance charges can then be realised. These items are not suggested in this book. The only other point in this section to which attention may be called is one in connection with the large scale organisation, where three main departments are advocated, viz., (1) Technical, (2) Accounting, and (3) Secretarial. The author then proceeds to split the technical department into three sub-divisions as follows: (*a*) purchasing, (*b*) manufacturing and (*c*) selling. This does not appear to cover the scope of this department when it is considered that the recommendations are dealing with a large organisation wherein the technical section will necessarily embrace designers, engineers, draughtsmen, and specialists, who cannot be conveniently grouped under either the sub-divisions given above. These men will constitute a service department, and can be grouped under a sub-division of their own as "technical service."

The second section in the keeping of accounts and costs is devoted to the necessary book-keeping, and here a complete system is outlined by Mr. Legge which will give the builder a very definite line to follow. The various books, their purposes, and methods of entry are explained, and the ruling that should be adopted is given in each case. Book-keeping is frequently looked upon as a tedious and complicated operation that is a source of expense without any corresponding income to make a system worth while, but this outlook is a narrow one, and a business which is run without the proper account books is liable to cause serious disappointment. When a business receives anything of value, whether in goods or cash, the firm becomes a debtor for the amount represented, and when anything goes out the firm is a creditor to that extent. This sums up the whole position as regards the book-keeping, and the secret of success is to be able to show all debits and credits, in whatever form they may be, in as clear a manner as possible, and in sufficient detail to make future identification simple. An illustration of a brief set of transactions along contract accounting lines is given by the author, and this will enable the system to be followed without difficulty.

The most important section of a builder's accounting department is that of costing, and the necessity of a reliable system in connection with this aspect of the business must be apparent to anyone connected with the industry. When a builder contracts for any work for a certain specified lump sum, he undertakes to supply (*a*) labour, (*b*) materials, and (*c*) direction and control. In order to estimate accurately, definite figures must be available in the form of actual costs of previous work executed, otherwise the estimated amounts will be pure guesses. The guess will be dangerous because it may be too low, in which case the builder will not be able to carry out the work at a profit, or it may be too high, in which case he will probably be unable to obtain the contract as a competitor estimating on sound lines will be quoting at a lower figure. In addition to this aspect an accurate costing system is necessary to determine whether the work when executed has resulted in a profit, and, if not, in what direction the loss has been incurred, as a guidance for future work. Another, and perhaps the most important point, in connection with a cost system, is the assistance that is given in preventing waste of time and leakages in materials, as an analysis of the unit costs will indicate, at a glance, an unsatisfactory state of affairs.

The allocation of labour costs from the time-sheets and records will not usually be a difficult matter provided job numbers are used and these are correctly applied. The question of materials is not quite so simple on account of the tendency for foremen to obtain articles from the stockyard and stores without a proper requisition, especially if the storekeeper is a busy man with a friendly disposition. In order to prevent leakages in this respect a stock control system is necessary, this being carried out by the use of stock cards showing all goods inward and all issues outward, the balance at any time indicating what material should be in hand. These cards should be entered up and dealt with by a costing clerk independent of the stores, and by constant checks any discrepancy can be found and the storekeeper challenged. This system also simplifies the annual or half-yearly stocktaking as the stock can be determined at any time from the cards if these are properly kept.

The third factor to be dealt with in costing, viz., direction and control, includes all overhead charges, and these are not easy to determine. The actual overhead on any job will include such items as rent, rates, services, management, advertising, and many similar matters, and any work in hand must be debited with a percentage of the cost of all these items, according to the magnitude of the job and its character. The considerable variation that is seen in competitive tendering by contractors, even when definite quantities are supplied, is evidence of the need for some recognised system of scientific costing which will enable the builder to estimate on reliable figures. Mr. Legge has dealt with costing methods in a very comprehensive manner, and this section of his book is particularly valuable to the builder as wages, materials and overhead costs are each dealt with in detail, and a complete system is laid down which should result in accurate figures being available for all work executed. In conclusion, it may be stated that no casual or rough and ready method of cost accounting will be of service to the builder, as this essential part of his business depends for its value entirely on its completeness and reliability, and a lack of proper system may result in heavy financial losses.

* "Builders' Accounts and Costs." By Robert G. Legge. London: Sir Isaac Pitman & Sons, Ltd. Price 3s. 6d. net.

BATTERY ROOM CONSTRUCTION

Proper housing of storage batteries is a matter of importance. A dry, cool atmosphere is required and the room should be spacious, well lighted, and thoroughly ventilated. Also, direct sunlight should be excluded and the ingress of coal dust or cinders from neighbouring chimney stacks guarded against. Provision must be made for proper drainage, and unless the material used for the flooring is selected and laid with special care trouble is almost sure to result. It is not, of course, always practicable to erect a new battery room; more often than not it is necessary to make the best of existing available accommodation. In either case, however, the following notes on specific points should be helpful.

Fixing the dimensions of the battery room is the first consideration after the size of plant to be installed has been determined. Much time and trouble will be saved if the battery maker be requested to supply a sketch indicating the ideal lay-out where new accommodation is proposed, or the best lay-out practicable when it is a case of making the best use of available room-space. Manufacturers, as a rule, will gladly render this service. Generally it is the practice to arrange the cells in a single tier, though in the case of small batteries a two-tier arrangement is sometimes adopted to save floor space. Easy access to every cell for inspection, reading of specific gravity and voltage, topping-up, etc., and safety of the attendant are the governing factors in determining the lay-out. Frequent inspection and attention are, of course, necessary if the best operating results and a long life are to be secured. In large installations it is usual to provide wide gangways, about 3 ft., between rows of cells; by placing two rows back-to-back the number of gangways necessary is reduced and floor space economised. In connection with small medium size plants for country house lighting, the battery is usually supplied complete with stand, and the overall dimensions can be ascertained from makers' catalogues.

The composition of the battery room floor is probably the most important consideration; it is necessary that it be of some acid-resisting material. Wood floors, for this reason alone, are obviously unsuitable. Even in the case of a battery of small cells wood floors should be treated with acid-resisting paint, or, preferably, covered with sheet lead. Opinions differ in respect of the use of concrete and cement. Undeniably acid will eat holes in concrete. Nevertheless, a concrete floor with a cement surfacing is quite common practice and gives satisfactory service; it is necessary, however, that it be kept thoroughly washed and clean. As a matter of fact, there is no reason why anything but a negligible quantity of acid should get on to the floor except as the result of accident. The satisfactory use of concrete and cement, then, depends to a large extent on the care of the attendant. There is just one other point to note. In the case of reinforced concrete floors on other than the ground level the possibility, in the event of neglect, of acid penetrating to the reinforcement and destroying it by chemical action must not be overlooked. An alternative is more particularly to be recommended in such circumstances.

Asphalt properly laid makes a good flooring in the majority of cases. It is superior to concrete in resisting the action of acid and looks neat; its only possible disadvantage is lack of mechanical strength. Cells of large capacity are very heavy and the area under the battery stand legs is subjected to a correspondingly high pressure. If the battery room is in any way warm the asphalt may soften sufficiently to allow subsidence to take place, when trouble will result. It is only necessary to recall that the connections from cell to cell are frequently burnt-up solid, and in any case are rigidly bolted up, to appreciate that a very slight subsidence of one cell is sufficient to upset the internal alignment of the plates of adjacent cells. In such circumstances more or less serious trouble is inevitable. A cool atmosphere is one of the requirements of an ideal battery room, and the risk of an asphalt flooring softening due to temperature effects is not a very serious one in the ordinary course of events. But it is a point that needs to be taken into consideration in special cases and more particularly in respect of installations in tropical countries. For all normal requirements a hard asphalt floor is entirely satisfactory.

Vitrified bricks and glazed tiles grouted with a gas tar pitch or some bituminous compound make the best floors. They are also of good appearance. A concrete foundation is the usual practice and a space of about ¼ in. is allowed between adjacent bricks or tiles. Unless laid in pitch or bitumen, acid may cause them to bulge or loosen. Staffordshire blue brick used in the above manner forms a thoroughly satisfactory job.

The necessity for proper drainage arrangements to ensure that liquid, or water thrown on when the floor is being washed, runs away immediately, is self-evident, and does not call for special comment.

Good lighting, both natural and artificial, is necessary for the safety of the attendant and to enable inspection and maintenance to be carried out in an efficient manner. Direct sunlight, however, must be excluded, as it affects the cells detrimentally in a number of ways. The most important, perhaps, is that the actinic rays tend to discharge the cells, while the loss of electrolyte from evaporation is also more rapid. North light is as desirable as in the case of factories, but frosted windows afford a good protection. For artificial lighting cab-tyre cables, or lead-covered wires, with all fittings of the water-tight class represent the usual practice.

Ventilation must be so arranged as to exclude draughts, as they may cause temperature variations in different parts of the room and excessive loss of electrolyte from evaporation. The possibility of coal dust and cinders finding their way into the battery room must be guarded against as much as possible as they commonly contain traces of iron and ammonia, which are extremely detrimental to the life of lead cells. In this connection it may be mentioned that ventilation of the louvre pattern when fitted in the roof are not a very sure safeguard. With small batteries natural ventilation is usually sufficient, but with large capacity cells, where gassing during overcharge is considerable, artificial ventilation becomes necessary. Exhaust ventilation is preferable to compression ventilation.

A very suitable roofing for battery rooms can be built of creosoted wood trusses covered with a special bituminised roofing felt. If there is a ceiling it should be wood creosoted or otherwise protected with acid proof varnish or paint. All exposed iron and metal work should be reduced to a minimum, and both metal and woodwork should be protected with an acid-resisting paint.

NEW BUILDINGS IN SCOTLAND

Fochabers.—Alterations.—The plans for the proposed extensive alterations and additions to Milne's Institution have been approved by the Moray E.C., and by the Bellis and District School Management Committee.

Paisley.—Cottages.—The Dean of Guild Court has passed plans for the erection of 22 semi-detached cottages and relative offices at Balgair-drive and Dalmary-drive, for Matthew Urie & Sons.

Kilmarnock.—Extensions.—Plans have been submitted for the alterations, erection and extension of buildings in King-street, for C. Alexander, Ltd., at a cost of £2,000.

Peebles.—Houses.—Details of the new housing scheme were submitted to the T.C. The scheme provides for the erection of over 100 houses.

Burntisland.—Houses.—The T.C. have decided to proceed with the erection of 20 additional houses.

TRADE NEWS

"Shepherd's N.E.W.S.," which we have just received, is a specially enlarged number, and, in our opinion, it excels any previous issue. Messrs. W. J. Hadfield, R. Drummond, E. L. Leeming, and W. Worby Beaumont contribute a really valuable symposium of opinions on road corrugations: causes and remedies. Further, as far as roads from the town-planning aspect are concerned, Mr. W. R. Davidge's contribution is a model of conciseness. There is also an illustration of the opening of the new arterial road from Failsworth to Royton; the total cost of construction is estimated at approximately half a million pounds. Various surfacing materials have been used, including some 26,500 super yds. of asphaltic slag.

Messrs. Rhodes Chains, Ltd., 178, Charing Cross-road, send us a copy of their latest leaflet dealing with the latest means of sash hanging, with the aid of their patent appliances. Their new patent rustproof frame sleeve bearing axle pulleys are, it is claimed, silent, easy-running, non-rusting, and everlasting. The illustration of the 2 in. pulley (No. 932) is so excellently reproduced that it enables one at once to distinguish the *brass* face and rust-proof frame, together with its component part, the No. 44 chain. Useful particulars are given to assist architects and builders with respect to their requirements for sashes up to 70 lbs. in weight.

We have received from Messrs. The Harvie Corporation, Ltd., 11, Queen Victoria-street, E.C.4, a pamphlet giving full particulars of their preparation "Cemenfortis." Non-inflammable and non-poisonous, it is, they state, a "Liquid Power" in building and repairs. No skilled labour is required and it is claimed that it makes floors and walls hard, dustproof, waterproof and wear-resisting. It is not, perhaps, sufficiently realised that a large amount of brickwork is ruined yearly in appearance by defective pointing and that in some of the most recent examples of brickwork the mortar and pointing has actually crumbled away and destroyed the appearance of the work in the course of a few days. It is claimed for "Cemenfortis," however, that it gives perfect workmanship and positive results in all work in which it can be suitably employed. Those who are interested in getting to the crux of the matter in so far as economy and efficiency are concerned, should write for a copy of this pamphlet.

"Safety First."

Safety First, the official journal of the National "Safety First" Association, is a monthly publication, at the price of one shilling to the public, though to members of the Association it is included as part of the subscription. The opening features of the first issue are a "Foreword" by the Home Secretary, Sir William Joynson-Hicks, Bart., M.P., who is President of the Association for 1925, the Duke of York's letter to the London Council, and a message on the work in the U.S.A. by Admiral Sims. The industrial side of the movement is dealt with in articles by Sir Thomas Legge, Senior Medical Officer, Home Office; "Why Accidents Happen," by the Association's Safety Engineer; and an illustrated description of "Safety First" organisation and results in a large soap works. There are articles devoted to safe motoring, and the Chief Constable of Stoke-on-Trent explains his method of preventing accidents among children in the streets, and the appalling accident toll in London is analysed.

Obituary.

The death took place recently of Mr. Henry Willcock, a well-known builder and contractor of Wolverhampton, and head of the firm of Messrs. H. Willcock & Co. He assisted with the erection of many important public buildings in different parts of the country, including Truro Cathedral, the Welsh National Museum, Cardiff, and the Welsh National Library, Aberystwyth. Mr. Willcock, who was 73 years of age was ex-President of the Institute of Builders, and also of the Master Builders' Federation.

A BUILDING CONTRACT

An important decision in connection with a building contract and clauses 31 and 32 of the Conditions issued by the Royal Institute of British Architects is reported in *Weekly Notes*, March 7, in the case Smith *v.* Martin and Another. The plaintiff had entered into a building contract with the defendants for the erection of thirty-six houses for the sum of £690 per house, and the conditions of the contract were those in the form issued by the Royal Institute. The work commenced last year, and in April and May the architect had complained that certain work was defective and had given notice to the plaintiff to rectify it. On May 10 the architect had given the plaintiff a certificate for £600, stating that it was conditional for its efficacy upon previous rectification of the defective work. The defendants refused to pay the amount of the certificate on the ground that the plaintiff had neglected to rectify the defective work. The plaintiff then gave the defendants notice, under Condition 31, requiring them to pay the sum, and on the defendants failing to comply with that notice the plaintiff refused to do any more work under the contract and determined it.

The plaintiff then, under Condition 32, applied for arbitration; an arbitration was held, and the arbitrator made an award in the plaintiff's favour for £1,156 11s. 6d. The defendants refused to pay the amount under the award on the ground that the arbitrator had no jurisdiction, the arbitration proceedings having been commenced before the completion of the works. A Master at Chambers had made an order enforcing the award, but on appeal to a Divisional Court the order was set aside on the ground that "the completion of the works" mentioned in Condition 32 meant the completion of the whole works as contemplated by the contract. It appears to have been pointed out by the Court that this decision did not leave a contractor without remedy; it deprived him, in the circumstances, of the right of going to arbitration, but did not leave him without remedy, as he could proceed by action for work done and materials provided.

The case is only at present very briefly reported, but it appears to raise points of complexity and importance, the discussion of which must be deferred until the full report appears in the Law Reports. Clause 31 of the Conditions, under which in this case the contractor purported to put an end to the contract on nonpayment of the sum certified for by the architect, uses the expression: "The contractor shall be at liberty to determine the contract"; but clause 32, which confers the right to go to arbitration, provides that such reference shall not be opened until after the "completion or alleged completion of the works," unless by consent.

By the first part of clause 32, however, it appears that this provision for arbitration is intended to apply to any dispute or difference which shall arise "either during the progress of the works or after the determination, abandonment, or breach of the contract, except as to the matters left to the sole discretion of the architect under clauses 4, 9, 16 and 19, and the exercise by him under clause 18 of the right to have any work opened up." According to the present report the certificate appears to have been conditional, and therefore it seems the question whether the condition had been fulfilled was one of the matters in dispute. Clause 32 specifies the matters which are to be the subject of arbitration, viz., the construction of the contract or any matter or thing arising thereunder or the withholding by the architect of any certificate, this latter question being the only matter capable of being the subject of reference before "the completion or alleged completion of the works."

The certificate had not been withheld in this case, therefore it does not appear to have come within the latter provision, but a question or difference had clearly arisen "during the progress of the works" as to a matter arising under the contract which it would appear to have been in the interest of all parties to have determined by arbitration and as soon as possible, but, according to this decision, quite apart from the question of the determination determined by arbitration, and as soon as must be deferred until the works as a whole are completed. As we have said, the present report is too brief to enable the case to be discussed in detail with any certainty, but if it leads to the result we have just indicated it appears a case might be made out for the amendment of clause 32.

Another point upon which no opinion can be expressed at present is whether a certificate in the form prescribed in the report as conditional is one under which a contractor could claim payment, and in default of payment determine the contract under clauses 30-32; but so far as can be gathered no question as to this arose in the case.

TWO DECISIONS UNDER THE RENT ACT

Two decisions under the Rent Acts require briefly noting. In the first place the case Westcott *v.* Bowes (*The Builder*, December 19, 1924) has been carried to the Court of Appeal, where the decision of the Divisional Court has been affirmed (*The Times*, July 24). In that case the house in question was let in August, 1914, by the then landlords at a rent of £85, the tenant paying the rates. In March, 1918, the defendant was the occupier of the house, and the landlord for the purpose of this case, and sublet the first floor to the plaintiff at a rental inclusive of rates. In 1923 the plaintiff applied for an apportionment of his rent, and claimed rent which he alleged was overpaid. The county court judge apportioned the rent at £2 10s. a month, but as the landlord was then paying the rates the Court deducted a sum of 18s. 6d. from this as representing the landlords' proportion of the rates. Section 12 subsection (1) (*c*) defines what is the "net rent." "The expression 'net rent' means, where the landlord at the time by reference to which the standard rent is calculated paid the rates chargeable on, or which but for the provisions of any Act would be chargeable on, the occupier, the standard rent less the amount of such rates, and in any other case the standard rent." The Court of Appeal affirmed the Divisional Court in holding that at the time of reference mentioned in this subsection the tenant was paying the rates, and therefore the standard rent and the net rent were the same, and the county court judge was wrong in making the further deduction from the standard rent. It is not easy to follow the case in detail, but it would appear that according to the decision in the county court the landlord would have been called upon to pay some portion of the rates twice over, for the apportionment must have been based on the rent payable in 1914, and that was the rent exclusive of rates as then paid by the tenant, but the case as reported at present does not show how the apportionment was arrived at.

The second case, Hall *v.* Rogers (*The Times*, February 27), turned on what is meant by "being in possession" or "coming into possession" under section 2 subsections (1) and (3) of the Rent Act, 1923, so as to render the house decontrolled. The circumstances as reported are peculiar, and it is difficult to see in exactly what form the question was raised in the court below, so we confine ourselves to stating the point of law as determined by a Divisional Court (constituted of two Lord Justices of Appeal). Apparently, a former tenant having left the house and removed his furniture without paying rent, the landlord's agent had visited the premises, and finding the tenant gone and the premises vacant, he had subsequently let them to another tenant, the defendant in this case. This tenant also appears to have got into arrears with the rent, and about a year after his tenancy the landlord had commenced proceedings against him for possession and arrears of rent, in which proceedings the defendant counterclaimed for overpayment and other matters. It is not clear from the report how this question of possession under the Act of 1923 came to be raised in these proceedings, but the Divisional Court held that there was evidence which justified the county court judge in holding that the landlord had not come into possession in the circumstances of this case. Subsection (3) enacts that for the purpose of this action the word "possession" shall be construed as meaning "actual possession," and a landlord shall not be deemed to have come into possession by reason only of a change of tenancy made with his consent." Apparently merely visiting the premises and finding them empty was not sufficient to show such a taking of possession as to satisfy the Act that the landlord had "come into possession." There was no key to the premises, so the landlord's agent had not locked them up, and the case does not define what act of taking possession would suffice. It is only stated to be a question of fact to a large extent in each case.

SPANISH MAHOGANY

Messrs. James Latham, Ltd., in addition to holding large stocks of seasoned hardwoods, make a speciality of choice figured veneers suitable for the manufacture of panels, for the interior decoration of large stores, banks, &c.

The illustration is of a panel manufactured from one of the finest logs of Spanish mahogany (Swietenia Mahogani, Linn) known to have reached this country, and purchased by Messrs. Latham. It has been cut to sawn veneers, and Messrs. Latham inform us that they would be pleased to send the actual panel for inspection to architects or contractors interested.

White Lead Regulations.

As a result of representations made by the London Chamber of Commerce and the Federation of British Industries, the War Office has intimated that it has been decided to cancel their instructions prohibiting the use of paint containing white lead.

NEW BUILDINGS IN LONDON

Grove Park.—Land at Grove Park, W.4. has been purchased by the City of London College for conversion into a sports' ground. A pavilion and training quarters, for which plans have been prepared by Messrs. Campbell Jones, Son & Smithers, 9, Dowgate-hill, E.C.4, are to be included.

Buckingham Palace-road.—Internal alterations are to be made to the Grosvenor Hotel, Buckingham Palace-road, S.W.1. Plans have been prepared by Mr. Scott, architect to the Southern Railway Co.

Woolwich.—It is proposed to expend about £40,000 on the completion of the British Hospital for Mothers and Babies, Samuel-street, S.E. 18. The work includes new staff buildings and several wards. The architect is Mr. Keith Young, 17, Southampton-street, W.C.1.

Piccadilly.—Plans are under consideration by the directors of Messrs. Fortnum & Mason, Ltd., for the rebuilding of their property in Piccadilly, Duke-street and Jermyn-street, W.1, The architects are Messrs. Edmund Wimperis & Simpson, 61, South Molton-street, W.1.

Dover-street.—Extensive alterations are to be made to premises in Dover-street, Piccadilly, W.1, for the Earl of Mexborough. The surveyors are Messrs. E. & S. Smith, F.S.I., 68, Great Queen-street, W.C.2.

Piccadilly-circus.—A large site in Sherwood-street, W.1, is likely to be extensively developed, if present negotiations are successful. Several schemes are under discussion, among them being a new theatre or an office block. The owners are the Stanley House Estate, 8–9, Sherwood-street, W.1.

Pall Mall.—Large extensions are to be made to the premises of the Army and Navy Club in Pall Mall, S.W.1. The building at No. 40 is to be demolished and a new wing, accommodating reception, dining and bedroom space, erected. The plans have been prepared by Mr. Claude W. Ferrier, 11, Waterloo-place, S.W.1.

Great Ormond-street.—Funds are being raised for the proposed nurses' home to be built at the Hospital for Sick Children, at Great Ormond-street, W.C.1. A building to accommodate about 140 nurses, costing £35,000 to £40,000, is to be built, to the designs of Mr. Charles E. Barry, A.R.I.B.A., Parliament Mansions, Victoria-street, S.W.1.

Lewisham.—The large premises known as the East London Industrial School, in Brookbank-road, S.E., have been purchased by Messrs. Chieseman Bros., furnishers, High-street, Lewisham, S.E., They are to be converted into depositories, &c.

Peckham.—Messrs. Henekey's, Ltd., intend to rebuild their premises at 64, Rye-lane. The architects are Messrs. Brown & Barrow, Lennox House, Norfolk-street, W.C.2.

Southwark.—Alterations and re-decorations are to be put in hand on the interior of the "Southwark Tavern" public house, Southwark-street, S.E.1, for Messrs. Meux's Brewery Co., Ltd. Plans are to be prepared by Mr. W. E. Foster, the company's surveyor.

Wandsworth-road.—New shop fronts and interior fitments are to be carried out at Nos. 590–594, Wandsworth-road, S.W.8, for Mr. A. A. Norman, of 592, Wandsworth-road. The architect is Mr. G. Percy Pratt, 174, High-street, S.W.3.

Oxford-street.—Phœnix House, 19–21, Oxford-street, W.1, has been purchased by Messrs. George Dolland, Ltd., for conversion into showrooms and shops. Plans have been prepared by Messrs. William & Edward Hunt, 30, Norfolk-street, W.C.

Hampstead.—Plans have been prepared for a School of Domestic Science at the Hampstead Garden Suburb, N.W.11. The architect is Mr. C. W. S. Soutar, "Wyldes," North End, N.W.3.

Regent-street.—A start will shortly be made on the new premises for Messrs. T. & J. Parry, jewellers, at 124, Regent-street, W.1. The associated architects are Messrs. E. Harry Major, 2, John-street, W.C., and W. Jennings Cox, Shamley Green, Guildford.

RATES OF WAGES IN THE BUILDING TRADE

Every endeavour is made to ensure accuracy, but we cannot be responsible for errors.

	Masons.	Brick-layers.	C'p'ters, Joiners.	Plas-terers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Accrington	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Altrincham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Ashton-under-Lyne	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Barnsley	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Barrow-in-Furness	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Barry	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bath	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bedford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bishop Auckland	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Blackburn	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Blackpool	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bolton	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bournemouth	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bradford	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Brentwood	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bridgwater	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Brighton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bristol	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Burnley	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Burton-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bury	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Cambridge	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Cardiff	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Chatham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Chelmsford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Cheltenham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Chester	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Chesterfield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Colchester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Coventry	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Crewe	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Darlington	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Derby	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Doncaster	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Dudley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Durham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
E. Glam.(Mon. Vall.)	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Eastbourne	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Exeter	1/7	1/7	1/7	1/7	1/7	1/7	1/6	1/2½
Folkestone	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Gloucester	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Grantham	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Grays	1/8½	1/8½	1/8½	1/8½	1/8½	1/8½	1/7½	1/3½
Grimsby	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Great Yarmouth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Guildford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Halifax	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Harrogate	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Hartlepools	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Hastings	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hereford	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Huddersfield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Hull	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Ipswich	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lancaster	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Leamington Spa	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leeds	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Leicester	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Lichfield	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Lincoln	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
London (12 m. radius)	1/9½	1/9½	1/9½	1/9½	1/9½	1/9½	1/8½	1/4½
London (12-15 m. radius)	1/9	1/9	1/9	1/9	1/9	1/9	1/8	1/4
Loughborough	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Luton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Maidstone	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Manchester	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Mansfield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Merthyr Tydfil	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Middlesbrough	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Newcastle-on-Tyne	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Newport. Mon.	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Northampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Norwich	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Nottingham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Oakham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Oldham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Oxford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Plymouth	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3½
Pontypridd	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Portsmouth	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Preston	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Reading	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Rochdale	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Rochester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Rugby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
St. Albans	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
St. Helens	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Scarborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Sheffield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Shrewsbury	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Southampton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Southend-on-Sea	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Southport	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
South Shields	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Stockport	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Stockton-on-Tees	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Stoke-on-Trent	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Stroud	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5	1/1½
Sunderland	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Swansea	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Swindon	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Taunton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Torquay	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Tunbridge Wells	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Wakefield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Walsall	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Warrington	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
West Bromwich	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Wigan	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Windsor	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1 1½
Wolverhampton	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Worcester	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
York	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½

†For rates of wages in the Building Trade in Scotland, see page 617.

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, etc.

APRIL 20.—**Bebington and Bromborough.**—HOUSES.—Thirty houses at Bebington and 30 houses at Bromborough, for the U.D.C. Surveyor, Council Offices, Bebington.

APRIL 20.—**Bootle.**—PAINTING.—Exteriors of 34 houses, Watts-lane, and 20 houses, Orrell-lane, for the C.B. J. Spencer Tumilty, Town Clerk.

APRIL 20.—**Chislehurst.**—COTTAGES.—50, for the D.C. Crickmer & Foxley, architects, 1, Lincoln's Inn Fields, London, W.C. Deposit £2 [illegible]

APRIL 20.—**Dublin.**—HOUSES.—Erect[illegible] by way of experiment of five-roomed houses, superficial area 844 super ft., for the County Borough Council. City Treasurer's Office. Deposit £2.

APRIL 20.—**Gillingham.**—Extension of school, for Kent E.C. W. H. Robinson, Room 69, Sessions House, Maidstone. Deposit £2 2s.

APRIL 20.—**Greenwich, S.E.10.**—HOUSES.—Erection of 100, for the Metropolitan Borough Council. Borough Engineer's Department, Town Hall, Greenwich. Deposit £2 2s.

APRIL 20.—**Grimsby.**—WARDS.—Two tuberculosis wards, with additional bedrooms, cold store, &c., at the Scartho Sanatorium, for the C.B. H. Gilbert Whyatt Borough Engineer. Deposit £2 2s.

APRIL 20.—**Halifax.**—GARAGE.—Excavators, masons and bricklayers, concretors, asbestos sheet roofing, plumbers and glaziers, iron and steelworkers, for the motor bus garage in Skircoat-road, for the C.B. Borough Engineer, Crossley-street.

APRIL 20.—**London.**—DWELLINGS.—Two blocks of dwellings on the Tabard-garden estate, Southwark, for the L.C.C. Architect to the Council (Room No. 3), the County Hall, Westminster Bridge, S.E.1. Deposit £2.

APRIL 20.—**Manchester.**—BUILDING.—Complete buildings, comprising mains stores, sub-station stores, workshops, &c. (excepting steelwork), and roadways, and structural steelwork, for the T.C. S. L. Pearce, Manager, Electricity Department.

APRIL 20.—**Monmouthshire.**—BUILDING.—Public elementary school at The Tranch, near Pontypool, and two cottages on the Rhadyr Farm, Usk, for the E.C. J. Bain, F.R.I.B.A., Architect, County Hall, Newport.

APRIL 20.—**Nottingham.**—ROOFING.—Joiners' and builders' work, for roofing over the platform at the end of Victoria ward, at the Bagthorpe Institution, 700, Hucknall-road, for the B.G. W. B. Starr & Hall, architects, 12, Victoria-street.

APRIL 20.—**Pembroke.**—REPAIRS.—Outside painting, pointing walls, repairing chimney stacks, roofs, &c., and pointing round doors, windows, and ridge tiles of 155 Pembroke cottages at Pigeon House-road, Ringsend, and off Cambridge-road, for the U.D.C. J. C. Manly, Clerk, Town Hall, Ballsbridge, Co. Dublin.

✱ APRIL 20.—**Portsmouth.**—WOOD FLOORING.—Taking up and relaying in the Institution Recreation Hall for the Committee. Portsmouth Borough Mental Hospital. Clerk, B.M. Hospital, Milton, Portsmouth.

APRIL 20.—**Pudsey.**—Stormwater tanking mass concrete and brick respectively for the Borough Council. The Clerk. Pudsey.

APRIL 20.—**Swansea.**—HOUSES.—Twenty-two houses on the Llanerch Estate, Bonymaen, for the C.B. Ernest E. Morgan, A.R.I.F.A., Borough Architect, 3 Prospect-place. Deposit £3 3s.

APRIL 20.—**Wakefield.**—PAINTING.—External painting at the County Hall, for the West Riding C.C. Architect, County Hall, Wakefield.

APRIL 20.—**Worcester.**—HOUSES.—Twenty-six pairs of houses in Bromwich-lane, for the Corporation. W. Ransom, City Surveyor.

APRIL 20.—**Ynysybwl.**—CENTRE.—Manual Instruction Centre and School Clinic at Ynysybwl, for the Mountain Ash E.C. W. H. Williams, Architect, Town Hall. Deposit £2 2s.

APRIL 21.—**Airedale.**—SCHOOL.—Builder, &c., carpenter and joiner, slater, plumber, plasterer, painter, work, for school at Ferry Fryston, for the West Riding C.C. Education Department. County Hall, Wakefield.

APRIL 21.—**Barton-upon-Irwell.**—HOUSES.—Twenty-six houses at Clifton, for the R.D.C. E. L. Leeming, surveyor, Green-lane, Patricroft. Deposit £2 2s.

APRIL 21.—**Bentley-with-Arksey.**—SCHOOL.—Builder, &c., carpenter and joiner, tiler, plumber, plasterer, painter works, &c., for the West Riding C.C. Education Department, County Hall, Wakefield.

APRIL 21.—**Bolton.**—LAUNDRY.—Laundry and calorifier house, &c., at the Fishpool Institution, Farnworth, near Bolton, for the B.G. J. Ward, architect, 24, Mawdsley-street. Deposit £3 3s.

APRIL 21.—**Bradford.**—HUT.—Re-erection of hut, School of Art and Crafts, for the T.C. City Architect.

APRIL 21.—**Bristol.**—SCHOOL.—Builder's and plumber's work connected with the erection of a Council school at Victoria-road, St. Philip's Marsh, for the T.C. J. Bevan, architect, 36, Corn-street. Deposit £2 2s.

APRIL 21.—**Croydon, Surrey.**—Convenience for men and women at Portland-road, for the County Borough Council. Borough Engineer, Town Hall, Croydon. Deposit £2 2s.

APRIL 21.—**Dersingham.**—ALTERATIONS.—To "The Feathers" Hotel. G. J. Skipper, F.R.I.B.A., Architect and Surveyor, 7, London-street, Norwich.

APRIL 21.—**Farsley.**—ALTERATIONS.—To offices at Farsley Wesley-street Council School, for the West Riding C.C. Education Department, County Hall, Wakefield.

APRIL 21.—**King's Norton.**—SCHOOL.—At Selly Oak-road, for the Birmingham E.C. H. T. Buckland, architect, Norwich Union Chambers, Congreve-street, Birmingham. Deposit £2.

APRIL 21.—**Sheffield.**—LODGE.—Registrar's lodge and office, public conveniences and boundary walls at Abbey-lane Cemetery, for the T.C. F. E. P. Edwards, F.R.I.B.A., City Architect. Deposit £2.

APRIL 21.—**Sligo.**—REPAIRS.—To cottages in the R.D.C. Scheme No. 9, for the R.D.C. Plans and specifications prepared by the Engineer, Sailors' and Soldiers' Department, Colonial Office (Irish Branch), 30, Lower Fitzwilliam-street, Dublin. Deposit £1 1s.

APRIL 21.—**Twickenham.**—Telephone Exchange at Twickenham, for the Commissioners of His Majesty's Office of Works. Contracts Branch, King Charles-street, S.W.1. Deposit £1 1s. (Cheques payable to the Commissioners).

APRIL 22.—**Bedford.**—ENLARGEMENT.—Enlargement of two underground sub-stations, for the T.C. Borough Electrical Engineer's Office, Prebend-street. Deposit £1.

APRIL 22.—**Bourne.**—PAVILION.—Twelve-bed tuberculosis pavilion, for the R.D.C. C. W. Bell, Clerk to the Council. Deposit £1 1s.

APRIL 22.—**Doncaster.**—ALTERATIONS.—Alterations and additions to offices at Nether Hall, for the B.G. W. R. Crabtree, Surveyor, Nether Hall.

APRIL 22.—**Doncaster.**—ALTERATIONS.—To a portion of the interior of the Grand Stand, for the C.B. R. E. Ford, Race Surveyor, 3, Priory-place.

APRIL 22.—**East Grinstead.**—HOUSES.—16 parlour and 14 non-parlour type houses at Worth, for the R.D.C. E. A. Chilton, architect, Town Hall Chambers, Uckfield. Deposit £2 2s.

APRIL 22.—**King's Langley, Herts.**—Boiler house, coalstore, &c., at Leavesden Mental Hospital, for M.A.B. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

APRIL 22.—**London.**—ALTERATIONS.—Alterations to gate lodge at North-Eastern Fever Hospital, St. Ann's-road, Tottenham, N.15; two staff cottages at Southern Hospital, Dartford, Kent, and tiling to walls of kitchen and scullery at Western Fever Hospital, Seagrave-road, Fulham, S.W.6, for the M.A.B. T. Cooper, Engineer-in-Chief.

APRIL 22.—**London.**—FENCING.—Fencing work required to airing courts at Eastern Fever Hospital, The Grove, Homerton, E.9, for the M.A.B. T. Cooper, Engineer-in-Chief. Deposit £1.

APRIL 22.—**London.**—REPAIRS.—Cleaning, painting, and repairing works at (1) North-Western Fever Hospital, Lawn-road, Hampstead, N.W.; (2) Southern Fever Hospital, Dartford, Kent; (3) South-Eastern Fever Hospital, Avonley-road, S.E.14; (4) Western Fever Hospital, Seagrave-road, Fulham, S.W.6, for the M.A.B. T. Cooper, Engineer-in-Chief. Deposit £1 each.

APRIL 22.—**London.**—REPAIRS.—Dry-docking, repairing and painting floating pontoon and repairing dolphins and supporting of pier brow, for the M.A.B. G. A. Powell, Clerk to the Board.

APRIL 22.—**Malew.**—HOUSES.—Eight houses in Ballasalla, for the P.C. A. E. Craine, Clerk, Malew Parish Commissioners.

APRIL 22.—**Menai Bridge.**—CONVERSION.—Additions to and conversion of Iorwerth House into a War Memorial Institute. Jos. Owen, Sons & Lloyd Owen, surveyors.

APRIL 22.—**Near Barnsley.**—PAINTING.—Structural repairs, and internal and external painting and decorating of Miners' Institute, Hoyland Common. Crawshaw & Wilkinson, architects, 13, Regent-street, Barnsley.

APRIL 22.—**New [illegible]uay.**—REPAIRS.—Repairs and reseating of the Tabernacle Chapel. Ll. Bankes Price, architect.

✱ APRIL 22.—**Reading.**—Alterations and additions to Park Hospital, for the Corporation. Charles Smith & Son, architects, 164, Friar-street, Reading. Deposit £3 3s.

APRIL 22.—**Redditch.**—HOUSES.—Thirty-six non-parlour houses, in blocks of four, in Farm-road, for the U.D.C. Lieut.-Colonel A. J. Dickinson, Surveyor to the Council. Deposit £1 1s.

APRIL 22.—**Rochdale.**—HOUSES.—Sixty-five houses on the Kilworth-street estate, for the C.B. S. H. Morgan, Borough Surveyor. Deposit £2 2s.

APRIL 22.—**Sleaford.**—HOUSES.—Twenty-eight houses in Drove-lane, for the U.D.C. W. H. Maxey, architect, 43, Eastgate.

APRIL 22.—**Sligo.**—REPAIRS.—To a cottage under Sligo R.D. Scheme No. 29. Plans and specifications by the Engineer, Sailors' and Soldiers Department, Colonial Office (Irish Branch), 30, Lower Fitzwilliam-street, Dublin. Deposit £1 1s.

APRIL 22.—**South Shields.**—CONVENIENCES.—On the North Foreshore, together with additions to the existing convenience in the South Marine Park, for the C.B. S. G. Stanton, Borough Engineer. Deposit £2 each.

APRIL 22.—**Stockton-on-Tees.**—ALTERATIONS.—Shelter, store and ladies' conveniences and for alterations and additions to the existing conveniences at the North End Recreation Ground, for the T.C. Borough Engineer.

APRIL 22.—**Truro.**—REBUILDING.—The "Barley Sheaf" Hotel. Leonard Winn, architect and surveyor, 27, Boscawen-street.

APRIL 23.—**East Sussex.**—New Secondary School, for the East Sussex Education Committee. County Surveyor, County Hall, Lewes. Deposit £3 3s.

APRIL 23.—**Hawick.**—HOUSES.—Three blocks of flatted houses at Mansfield, and five blocks of flatted houses at Bright-street, for which the undernoted trades are required:—Brickwork, joiner work, plasterer and roughcast work, plumber and slater work, painter work, glazier work; for the T.C. John R. Purdom, Town Clerk. Deposit £2 2s.

APRIL 23.—**London, S.W.2.**—Erection of cottages and flats on the Bloomfield Estate, Norwood, for the Lambeth Borough Council. Borough Engineer, Lambeth Town Hall, Brixton Hill, S.W.2. Deposit £3 3s.

APRIL 23.—**Londonderry.**—ADDITIONS.—Alterations and additions to Victoria R.U.C. Barracks, for the Government of Northern Ireland. Secretary, Ministry of Finance, 15, Donegall-square, West, Belfast. Deposit £1.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick-layers.	Car-penters. Joiners.	Plas-terers.	Slaters.	Plum-bers.	Painters	Brick-layers' Labourers.	Plas-terers' Masons' Labourers.
Aberdeen	1/8	1/8½	1/8	1/8	1/8	1/8	1/7	1/0½	
Airdrie	1/8	1/8	1/8	1/8	1/8	—	1/6½	1/3	
Alexandria	1/8	1/8	1/8	1/8	1/8	1/8	—	1/2½ to 1/3½	
Arbroath	1/7	1/7	1/7	1/7½	1/7	1/7	1/5½	1/1½	
Ayr	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/3	
Bathgate	1/8	1/8	1/8	1/8½	1/8	1/8	1/6½	1/2 to 1/3	
Blairgowrie	1/7	1/7	1/7	1/7½	1/5	1/7	1/4	10d. to 1/-	
Bo'ness	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3	
Coatbridge	1/8	1/8	1/8	1/8	1/8	—	1/6½	1/3 to 1/3½	
Dumbarton	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½	
Dumfries	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2	
Dundee	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3	
Dunfermline	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3	
Edinburgh	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½	
Falkirk	1/7½	1/7½	1/7	1/8	1/7	1/7	1/6½	1/2½	
Fort William	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2	
Galashiels	1/6½	1/5½	1/6½	1/6½	1/6½	1/6½	1/6	1/2	
Glasgow	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½	
Greenock	1/8	1/8	1/8	1/9	1/8	1/8	1/7	1/0½ to 1/3½	
Hamilton	1/8	1/8	1/8	1/9	1/8	1/8	1/6½	1/3½	
Hawick	1/6	1/6	1/6	1/6-1/6	1/6	1/6	1/6	1/2	
Helensburgh	1/8	1/8	1/8	1/9	1/8	1/8	1/7	1/3½	
Inverness	1/5	—	1/5	1/4	1/5	1/5	1/4	1/- to 1/2	
Kilmarnock	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½	
Kirkcaldy	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½	
Kirkwall	1/5	1/5	1/4	1/5	1/5	1/4	1/4	1/	
Lanark	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/- to 1/3	
Leith	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½	
Motherwell	1/8	1/8	1/8	1/9	1/8	1/8	1/6½	1/3½	
Perth	1/8	1/8	1/8	1/9	1/8	1/8	1/6½	1/3	
Stirling	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/3½	
Stirlingshire (Eastern District)	1/8-1/10	1/8-1/10	1/8	1/9	1/7	1/8	1/6½	1/3½	
Wishaw	1/8	1/8	1/8	1/9	1/8	1/8	1/7	1/3½	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 618.

APRIL 23.—**Maesteg.**—ELECTRIC LIGHTING.—Fixing of electric lighting equipment, wiring and fittings, at 135 houses, for the U.D.C. Surveyor.

✱APRIL 23.—**Manningtree, Essex.**—ALMSHOUSES.—Penman, 1, Thorpewood-avenue, Sydenham, S.E.26. Deposit 10s.

APRIL 24.—**Bucklow.**—BUILDING.—Sewage disposal works in the parish of Northenden, for the R.D.C. R. Curtis Cordon, 25, Station Buildings, Altrincham. Deposit £3 3s.

APRIL 24. — **Great Yarmouth.** — HOUSES. — One hundred in 13 blocks, for the Town Council. Borough Engineer, Town Hall. Deposit £2 2s.

✱APRIL 24.—**Lewisham, S.E.13.**—New Nurses' Home at Lewisham Hospital, for the Guardians of the Poor of the Lewisham Union. J. Douglas Mathews, Son, & Ridley, architects, 3, Paul's Bakehouse-court, Godliman-street, E.C.4. Deposit £3 3s.

APRIL 24.—**Norfolk.**—FENCING.—Sundry repairs to Upwell Neatmoor Hall Farm houses, premises and cottages, and also for 5,000 yds. of post and wire fencing, for the C.C. County Land Agent, The Shirehouse, Norwich. Deposit £1 1s.

APRIL 24.—**North Burlingham.**—COTTAGES.—Two cottages and outbuildings at Green Farm, for the Norfolk C.C. T. G. Ellis, County Land Agent, The Shirehouse, Norwich. Deposit £1 1s.

APRIL 25.—**Aberdare.**—ADDITIONS.—To the Gadly Central School, for the E.C. Thomas Roderick & Sons, architects, Clifton-street. Deposit £2 2s.

APRIL 25.—**Birmingham.**—DEPOT.—Motor bus depot on a site between Serpentine-road and Lonsdale-road, Harborne, for the T.C. Crouch, Butler & Savage, architects, 67A, New-street. Deposit £2 2s.

APRIL 25.—**Durham.**—HOUSES.—Twenty-six type "A" houses at Framwellgate Moor, for the R.D.C. J. N. Adams, Architect to the Council, 40, Saddler-street. Deposit £1 1s.

APRIL 25.—**Forehoe.**—COTTAGES—Two pairs of cottages at Easton, for the R.D.C. Wm. Partridge Smith, Clerk, Vicar-street, Wymondham. Deposit £1.

APRIL 25.—**Midhurst.**—ADDITIONS.—New science block at the Grammar School, for the West Sussex C.C. Hadyn P. Roberts, F.R.I.B.A., architect, Westgate, Chichester. Deposit £1 1s.

APRIL 25.—**Skipton.**—HOUSES.—Forty houses in blocks of two, on the Council's Carleton-road housing site, for the U.D.C. A. E. W. Aldridge, engineer and surveyor. Deposit £1 1s.

APRIL 25.—**Wakefield.**—BANDSTAND.—Bandstand in Clarence Park, for the T.C. City Surveyor.

APRIL 27.—**Birr.**—REPAIRS.—To cottages under Birr No. 1 R.D., Schemes Nos. 78 and 262, in accordance with plan and specification prepared by the Engineer, Sailors' and Soldiers' Department, Colonial Office (Irish Branch), 30, Lower Fitzwilliam-street, Dublin. Deposit £1 1s.

APRIL 27.—**Bucklow.**—HOUSES.—Eight parlour-type houses and 12 non-parlour-type houses, in blocks of four, on the Baguley Housing site, for the R.D.C. R. Curtis Cordon, engineer and surveyor, 25, Station Buildings, Altrincham. Deposit £2 2s.

APRIL 27. — **Dewsbury.** — ALTERATIONS.—Masons', joiners', plumbers', slaters', plasterers', and painters' work in connection with structural alterations to the Queen Victoria Jubilee Council School, for the C.B. H. Dearden, A.R.I.B.A., Borough Surveyor. Deposit £1 1s.

APRIL 27.—**Dungannon.**—HOUSE.—Station master's house, for the Great Northern Railway (Ireland). J. B. Stephens, Secretary, Amiens-street Station, Dublin. Deposit £2 2s.

APRIL 27.—**Durham.**—ADDITION TO SCHOOL.—New department to accommodate 304 scholars, together with the work in connection with alterations and improvements to the existing premises, for the County Council. Mr. F. Willey, F.R.I.B.A., 34, Old Elvet, Durham.

APRIL 27.—**Haywood.**—HOUSES.—Twenty houses in Orchard-street, and 10 houses in Barley Hall-street, for the T.C. J. B. Nuttall, Borough Surveyor. Deposit £1 1s.

APRIL 27.—**London.**—ELECTRIC LIGHT.—Installation of electric lighting, new main switchboard and electric power cables, &c., at the Grove Park Institution, Lee, S.E.12, for the M.A.B. T. Cooper, Engineer-in-Chief, Victoria Embankment, E.C.4. Deposit £1 each.

APRIL 27.—**London.**—HOUSES.—Sixty-four on Brentfield estate, Stonebridge, for the Willesden U.D.C. Engineer to the Council, Town Hall, Kilburn.

APRIL 27.—**Longford.**—REPAIRS.—To road and cottages under Longford U.D. Scheme No. 102, in accordance with plan and specification prepared by the Engineer, the Irish Sailors' and Soldiers' Land Trust, 30, Lower Fitzwilliam-street, Dublin. Deposit £1 1s.

APRIL 27.—**Silksworth.**—EXTENSIONS.—New Department to accommodate 304 scholars, and alterations and improvements to the existing premises, for the Durham C.C. F Willey, F.R.I.B.A., 34, Old Elvet, Durham.

APRIL 27.—**Wakefield.**—POINTING.—Pointing, &c., at the County Hall, for the West Riding C.C. West Riding Architect, County Hall.

APRIL 28.—**Bedwas and Machen.**—HOUSES.—Forty semi-detached parlour-type houses and the construction of roads and sewers on the Bryn-y-Fran site, Trethomas, near Bedwas, for the U.D.C. Engineer and Surveyor. Deposit £3 3s.

APRIL 28.—**Epsom.**—HOUSE.—House and offices at the Council's Waterworks, East-street, for the U.D.C. A. C. Williams, architect, Ashley-road. Deposit £2 2s.

APRIL 28.—**Glasgow.**—BUILDING.—At Mearnskirk Sanatorium, Mearns, Renfrewshire, for the T.C. J. Lindsay, Town Clerk. Deposit £5 5s.

APRIL 28.—**Leeds.**—HOUSES.—Six type "B" houses in Raynville-crescent, on the Wyther House estate, for the T.C. W. T. Lancashire, City Engineer.

APRIL 28.—**Manchester.**—HEATING.—Installation of accelerated low pressure hot water heating at Aytoun-street Employment Exchange, for H.M.O.W. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s.

APRIL 28.—**Oxford.**—Pavilion and kitchen block at the Headington Manor extension of the Ratcliffe Infirmary and County Hospital, Oxford. The Administrator.

APRIL 28.—**South Eston.**—ALTERATION.—To South Eston Council School, for the North Riding C.C. J. C. Wrigley, Secretary E.C., Northallerton.

APRIL 28.—**Wetherby.**—HOUSES.—Twelve houses at Wetherby, two houses at Kirkby Overblow, four houses at Weeton, two houses at East Keswick for the R.D.C. A. Suttel, architect.

APRIL 29. — **Manchester.** — SCHOOLS. — Municipal schools in Claremont-road, Withington, for the E.C. P. M. Heath, Town Clerk. Deposit £2 2s.

APRIL 29.—**Nuneaton.**—Fifty houses in Tomkinson-road, for the Borough Council. H. N. Jepson, Queen's Buildings, Nuneaton. Deposit £2 2s.

APRIL 29.—**Rawtenstall.**—HOUSES.—Forty houses at Oakley, Rawtenstall, 20 houses at New Inn, Crawshawbooth, and six houses at New Inn, Crawshawbooth, for the T.C. A. Brocklehurst, architect, St. James's Chambers, Waterfoot. Deposit £2 2s.

APRIL 29. — **Thornaby-on-Tees.** — HOUSES. — 100 houses, for the T.C. A. J. Smith, Borough Engineer and Surveyor. Deposit £2 2s.

APRIL 30. — **Abersychan.** — HOUSES. — 88 houses of the parlour type at Ebenezer site, near the Oak Brick Works, Cwmffrwdoer, Pontnewynydd, for the U.D.C. O.P. Bevan, architect, Station-road, Bargoed.

APRIL 30.—**Acton.**—Elementary school at East Acton, W.3, for the E.C. Secretary for Education, Municipal Offices, Acton, W.3.

APRIL 30.—**Bridgend.**—HEATING.—Providing and installing heating at the offices of the Bridgend and Cowbridge B.G. R. Hamar Cox, lerk.

APRIL 30.—**Cannock.**—HOUSES.—Eight houses at Brewood and 12 houses at Coven, for the R.D.C. H. M. Whitehead, Engineer's Office, Penkridge, Stafford.

APRIL 30.—**Greenock.**—HOUSES.—400 houses at Hole Farm and Bow Farm, for the T.C. A. Nimmo, Town Clerk. Deposit £2 2s.

✱APRIL 30.—**Hereford.**—HOUSES.—Sixty on the Westfields site, for the Housing Committee of the Corporation. Herbert Skyrme, M.S.A., architect, 138, Windemarsh-street, Hereford.

APRIL 30.—**Leeds.**—PAINTING.—Inside painting at various scattered homes, for the B.G. J. H. Ford, Clerk to the Guardians

APRIL 30. — **Newcastle-under-Lyme.**—WALL.—Construction of about 920 lin. yds. of reinforced concrete retaining walls, for the C.B. J. Moncur, County Buildings, Stafford.

APRIL 30.—**Shipley.**—HOUSES.—Seventy houses on the Albert-road estate, for the U.D.C. H. Dawson, architect. Deposit £2 2s.

APRIL 30.—**Sunderland.**—Adaptation work at Tatham-street Employment Exchange, Sunderland, for the Commissioners. Contracts Branch, H.M.O.W., King Charles-street, S.W.1. Deposit £1 1s. (cheques payable to the Commissioners).

MAY 1.—**Aberystwyth.**—PAINTING.—At Alexandra, Balmoral, Mynachty, and Carpenter Halls of Residence, for the University College of Wales. J. L. Newbon, Secretary.

✱MAY 1.—**London, W.12.**—Electricity sub-station, for Hammersmith B.C. F. Hill, Electricity Department, 85, Fulham Palace-road, W.6.

MAY 1. — **Macclesfield.** — New Post Office and Telephone Exchange for the Commissioners. Contracts Branch, H.M.O.W., King Charles-street, S.W.1. Deposit £1 1s. (cheques payable to the Commissioners).

MAY 1.—**Norfolk.**—REPAIRS.—Sundry repairs to the Outwell Farm-house, premises and cottages, for the C.C. T. G. Ellis, County Land Agent, The Spire-house, Norwich. Deposit £1 1s.

✱MAY 1.—**Retford.**—Twenty houses (in two pairs), for the Retford Co-operative Society, Ltd. W. Southall, architect, Chapelgate, Retford. Deposit £2 2s.

MAY 4.—**Gateshead.**—PAINTING.—An iron chimney stack at the Poor Law Institution, High Teams, Gateshead, for the B.G. G. Craighill, Union Clerk, Poor Law Union Offices.

MAY 5.—**Brecon, South Wales.**—New hospital in Cerrigcochion-road, for the County Council. Henry F. W. Harries, County Hall. Deposit £5

✱MAY 5.—**Leicester.**—New central fire station and firemen's houses on the Lancaster-road, for the Watch Committee of the Corporation. A. E. & T. Sawday, 56, London-road. Deposit £2.

MAY 5.—**Sutton Bridge.**—HOUSES.—Eight pairs of houses on the Prince's-street site, for the U.D.C. A. W. & H. J. Wilson, architects, Cumbergate, Peterborough.

✱MAY 6.—**Chertsey.**—Cottages (46) for U.D.C. E. J. Castle, Council Offices, Chertsey. Deposit £1 1s.

MAY 6.—**Glyn-neath.**—VESTRY.—At Glyn-neath, for the Trustees of Bethania C.M. Chapel. W. D. Morgan architect, 199, Ystrad-road, Pentre. Deposit £3 3s.

MAY 9.—**Horsforth.**—HOUSES.—Eighty non-parlour and 20 parlour type houses, for the U.D.C. J. E. Aldersley, surveyor.

✱MAY 11.—**Friern Barnet.**—HOUSES.—Twenty, for the U.D.C. The Surveyor, Council Offices, "The Priory," Friern Barnet-road, Friern Barnet, N.11. Deposit £2.

✱MAY 11.—**Hove.**—Fire station and offices, for the T.C. Clayton & Black, 10, Prince Albert-street, Brighton. Deposit £2 2s.

MAY 11.—**London, E.1.**—TENEMENT.—Erection of tenement buildings in Carr-street, Limehouse, E.14, for Borough Council of Stepney. Borough Engineer, Municipal Offices, Rayne-street, Old Gravel-lane, E.1. Deposit £2, Treasury Notes.

MAY 12.—**Darton.**—EXTENSIONS.—Builder, &c., carpenter and joiner, tiler, plumber and glazier, plasterer, painter work, for the extensions to Darton Borough Council School, for the West Riding E.C. Education Department, County Hall, Wakefield.

✱MAY 20.—**Herts.**—Boiler house, coal store, &c., at Leavesden Mental Hospital, King's Langley, for the M.A.B. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

NO DATE.—**Ardsley.**—ELECTRIC LIGHT.—Installation of electric light in the Blackgates Council School. P. Beaumont, West Riding Education Offices, 8, St. John's North, Wakefield.

NO DATE.—**Atherstone.**—ALTERATIONS.—To drapery department, Long-street, Atherstone, for the Atherstone Industrial Co-operative Society. Architect's Department of the Co-operative Wholesale Society Ltd., 1, Balloon-street, Manchester. Deposit £1 1s.

NO DATE. — **Bolton-on-Dearne.**—CONVERSION.—Of offices in the Boys' Department of the Council school, for the West Riding C.C. W. H. Jones, Education Offices, Mexborough.

✱NO DATE.—**Cobham.**—Erection of a semibungalow at Cobham, near Leatherhead, Surrey. F. Nesbitt Kemp & Son, 34, Bonser-road, Twickenham, Middlesex.

NO DATE.—**Cudworth.**—HOUSES.—Two houses at Cudworth, for the Brickworks, Ltd. Secretary, Registered Office, Cudworth, near Barnsley.

NO DATE.—**Leeds.**—HOUSE.—Proposed detached house. S. Hodgson Doyle, Calverley Chambers, Victoria-square.

NO DATE.—**Govan.**—PAINTING.—Painter work in connection with the construction of eight houses at the Asylum, for the District Board of Control. Angus Baillie, Clerk, 7 and 8, Carlton-place, Glasgow.

NO DATE.—**Whitwood.**—HOUSES.—Forty-six houses at Three Lane Ends, Methley-road, Whitwood Mere, for the U.D.C. R. A. Easdale A.R.I.B.A., architect.

MATERIALS, etc.

APRIL 20.—**Baildon.**—BRICKS.—Road materials and bricks, for the U.D.C. R. Howard Moore, Clerk.

APRIL 20.—**Bollington.**—MATERIALS.—Tarred slag granite macadam, for the U.D.C. Samuel Knight, Clerk, Council Offices, Bollington, near Macclesfield.

APRIL 20.—**Maldon.**—MATERIALS.—Broken granite, Kentish flints, gravel, tar-surfacing, for the R.D.C. E. J. Ennals, Surveyor, 6, Market-hill.

APRIL 20.—**Melton Mowbray.**—GRANITE.—Granite and slag, for the R.D.C. E. C. Moorhouse, Highway Surveyor, 20, Nottingham-street.

APRIL 20. — **Pontefract.** — MATERIALS. — Slag and broken granite, for the T.C. W. H. Newton, Borough Engineer.

APRIL 20.—**Tenterden.**—MATERIALS.—Granite and Kent ragstone, for the T.C. W. L. C. Turner, Borough Surveyor.

APRIL 21. — **Barton-upon-Irwell.** — MATERIALS. — Broken stone, granite chippings, macadam cement and earthenware pipes, for the R.D.C. E. L. Leeming, Surveyor.

APRIL 21.—**Ripley.**—MATERIALS.—Granite concrete paving slabs, concrete kerbing, sandstone kerbing, limestone asphalt, asphalting, Breedon gravel, creosoted boarding, limestone setts, and stoneware sanitary pipes, for the U.D.C. G. Whitcombe, Clerk, Town Hall, Ripley, Derbyshire.

APRIL 21.—**Wealdstone.**—PIPES.—Sixty-five tons of cast-iron pipes with 10 tons of specials, and 500–600 tons of British Portland cement, for the U.D.C. H. Walker, Engineer and Surveyor.

APRIL 23.—**Manchester.**—PIPES.—Six tons of special cast-iron hydraulic pipes, for the T.C. Secretary, Waterworks Offices.

APRIL 24.—**Lochgilphead.**—MATERIALS.—Paints and oils, for the Argyll and Bute District Asylum. Medical Superintendent.

APRIL 24.—**London.**—STEEL.—Ninety-two tons steel rails, for the South Indian Railway Co. R. White & Partners, 3, Victoria-street, S.W.1.

APRIL 25.—**Glasgow.**—MATERIALS.—Bricks, lime and cement, electric fittings, and oils, &c., for the P.C. A. Reynard, Inspector 266, George-street.

APRIL 28.—**Maesteg.**—MATERIALS.—Cement, paints and oils, stoneware pipes, bricks, stone flagging, kerb, and channel, lime mortar, for the U.D.C. S. J. Harpur, Surveyor to the Council.

APRIL 30.—**Chatham.**—PIPES.—500 tons of cast-iron pipes and special castings, for the Rochester and Chatham Joint Sewerage Board. W. H. Radford & Son, Chartered Civil Engineers, Albion Chambers, King-street, Nottingham. Deposit £2 2s.

MAY 15.—**Siam.**—STEEL.—Superstructure of steel railway bridges, for the Royal State Railways. Commissioner-General, Bangkok.

MAY 20.—**Madras.**—PIPES.—Stoneware pipes and specials, varying from 4 in. to 15 in. in diameter, and aggregating a total length of about 300,000 ft., for the T.C. J. Mansergh & Sons, Agents to the Corporation of Madras, India, 5, Victoria-street, Westminster, London, S.W.1.

JUNE 3.—**South Africa.**—PIPES.—Approximately 33 miles 33 in. diameter steel pipes and specials, cement lined, for the Cape Town T.C. J. R. Finch, Town Clerk, City Hall. Deposit £5 5s.

ENGINEERING, IRON AND STEEL.

APRIL 20.—**Pudsey.**—TANK.—Stormwater tank and other works at the Sewage Works, Houghside, Pudsey, for the C.B. A. E. Evans, Town Clerk.

APRIL 20.—**Stock.**—BRIDGE.—Bridge over the Wash, the retaining walls, raising the road level, and formation of carriageway and footpath, and sundry other works, at Stock, near Chelmsford, for the Essex C.C. W. H. Morgan, County Surveyor, Old Court, Chelmsford.

APRIL 23.—**Ayr (Northern District).**—RESERVOIR.—On the Glen Burn, about 4 miles from West Kilbride by road, including an embankment, an outlet culvert, a valve tower, a waste weir, piping, and other relative work, for the C.C. Warren & Stuart, engineers 94, Hope-street, Glasgow.

APRIL 24.—**Aberdeen.**—RECONSTRUCTION.—Reconstruction of superstructure of the three-span bridge over the railway and the Ebrie Burn at Auchnagatt Station, for the Deer D.C. W. Murison, surveyor, County Buildings.

APRIL 25.—**Birmingham.**—STEELWORK.—Constructional steelwork in connection with the new motor bus depot on a site between Serpentine-road and Lonsdale-road, Harborne, for the T.C. Crouch, Butler & Savage, architects, 67A, New-street. Deposit £2 2s.

APRIL 25.—**Northumberland.**—RECONSTRUCTION.—Of the following bridges, in masonry:—Bowmont Bridge, Doddington Mill Bridge, Wooler Bridge, Eglingham Bridge, Swilderburn Bridge, for the C.C. J. A. Bean, County Surveyor, Moothall, Newcastle-on-Tyne. Deposit £2 2s.

APRIL 30.—**Drip.**—BRIDGE.—Bridge over the River Forth, at Drip, Stirling, for the Stirling and Perth C.C. D. R. Cox, Road Surveyor, Stirling.

MAY 1.—**Canvey Island.**—SLUICE.—New sluice of concrete tubes, with head and wing walls, iron penstock, and tidal flap, through the Smallgains River wall, for the Canvey Island Commission. Case & Cunningham, engineers, Broad Sanctuary Chambers, S.W.1.

ROAD, SEWERAGE, AND WATER WORKS.

APRIL 20.—**Baildon.**—MAINS.—Excavation, laying and jointing of 2,620 lineal yds. of 7 in. and 6 in. steel and cast-iron water main, together with the supplying of the necessary valves and special materials, for the High Level Main from Birch Close-lane, Bingley, to Northgate, for the U.D.C. R. Howard Moore, Clerk.

APRIL 20.—**London.**—Paving carriageways and footways of various streets for the Corporation of London. Town Clerk, Public Health Department, Guildhall, E.C.2.

APRIL 20.—**Newmarket.**—SEWER.—271 yards of 9 in. stoneware pipe sewer, with four manholes, at the north-west Approach-road, to the Sewage Farm, Exning-road, for the U.D.C. W. H. Eley, Surveyor, Council Offices.

APRIL 20.—**Steyning West.**—SEWERS.—Construction of certain 9 in. and 12 in. stoneware pipe sewers, together with manholes, ventilating shafts and other contingent works in the Parish of Lancing, for the R.D.C. Fredk. Slaughter, Jarvis-lane, Steyning, Engineer to the Works.

APRIL 21.—**Belfast.**—PAVING.—Sewering, paving, &c., of the new streets, for the C.B. City Surveyor. Deposit £1 1s.

APRIL 21.—**Brentford.**—SEWER.—600 yards of 48 in. diameter concrete tubes, special junctions, concrete manholes, &c., for the Gunnersbury-lane outfall sewer, for the U.D.C. W. J. W. Westlake, Engineer and Surveyor.

APRIL 21.—**Carlisle.**—ROAD.—Construction and maintenance of 13,500 square yards of tarmacadam or tarred slag carriageway, for the C.B. H. C. Marks, City Engineer and Surveyor. Deposit 10s.

APRIL 21.—**London.**—RECONSTRUCTION.—Of Chestnut-road, for the Tottenham D.C. R. C. Graves, Clerk of the Council. Deposit £1 1s.

APRIL 22.—**Bournemouth.**—MAKING-UP.—Coronation-avenue, for the C.B. F. P. Dolamore, Borough Engineer. Deposit £1 1s.

APRIL 22.—**London.**—REPAVING.—Part of Scrubbs-lane, for the Hammersmith B.C. R. Hampton Clucas, Borough Engineer and Surveyor.

APRIL 22.—**Rochdale.**—ROADS.—Construction of roads and sewers on the Kilworth-street estate, for the C.B. Borough Surveyor.

APRIL 23.—**Enniskillen.**—SEWERS.—Construction of new main sewers at Tonystick, for the U.D.C. J. Donnelly, Architect and Borough Surveyor. Deposit £1.

APRIL 23.—**Hursley.**—ROADS.—Widening, re-forming kerbing, draining, &c., of one mile of road at Allbrook, and reconstruction of the canal bridge and widening of the bridge and culvert at Highbridge, for the R.D.C. J P. Game, Surveyor. Deposit £1 1s.

APRIL 23.—**West Lothian.**—PIPES.—Cutting tracks and laying and jointing about 7¼ miles of 24 in. cast-iron pipes from the Lanark-road to tank at Pate's-hill, for the Bathgate D.C. J. & A. Leslie & Reid, engineers, 72A, George-street. Deposit £1.

APRIL 23.—**Willesden.**—SEWER.—553 lin yds. of 18 in. diameter concrete tube intercepting sewer, in Neasden-lane, and 34 lin. yds. of 36 in. diameter concrete tube, 16 lin. yds. of special construction, 84 lin. yds. of 30 in. by 45 in. concrete tube, forming a surface-water culvert near Neasden-lane, for the Willesden U.D.C. F. Wilkinson, Engineer.

APRIL 24.—**Caerphilly.**—ROADS.—Constructing, in connection with the Lawrence-street housing scheme roads and sewers, for the U.D.C. B. Jenkins. Deposit £2 2s.

APRIL 25.—**Denbigh.**—IMPROVEMENTS.—Carrying out works in connection with the proposed improvement of the corners situated about 2¼ miles west of Llangollen Town on the Holyhead-road, for the C.C. Ellis W. Jones, County Surveyor for Roads and Bridges, Eastern Division, Wrexham. Deposit £5.

APRIL 25.—**Pontefract.**—ROADS.—Construction of the roads and sewers on the Love-lane housing site, for the T.C. W. H. Newton, Borough Engineer. Deposit £2 2s.

APRIL 27.—**Chatham.**—PIPES.—330 lin. yds. of iron pipe sewers, and 26,497 lin. yds. of stoneware pipe sewers, in the High Level area, for the T.C. W. H. Radford & Son, Chartered Civil Engineers, Albion Chambers, King-street, Nottingham. Deposit £5 5s.

APRIL 27.—**Ilford.**—SEWERS.—Construction of about 1,500 lin. yds. 15 in. stoneware pipe sewer and about 300 lin. yds. 9 in. stoneware pipe sewer, together with manholes, &c., from The Drive to Eastern-avenue, for the U.D.C. Engineer and Surveyor. Deposit £2 2s.

APRIL 27.—**Pembroke.**—REPAIRS.—Laying reinforced concrete on Shelbourne-road and Barrow-street, for the U.D.C. J. C. Manly, Clerk, Town Hall, Ballsbridge, Co. Dublin.

APRIL 28.—**New Hunstanton.**—MAINS.—Laying of 2,570 lin. yds. of 6 in. and 4 in. cast-iron mains, for the U.D.C. F. Wilkinson, Engineer and Surveyor. Deposit £1 1s.

APRIL 30.—**Chatham.**—SEWER.—2,843 lin. yds. of concrete sewer culvert, and 1,136 lin. yds. laying and jointing 30 in. diameter cast-iron pipes, 2,230 yds. of these lengths being in tunnel, together with deep manholes, and other appurtenant works, for the Rochester and Chatham Joint Sewerage Board. W. H. Radford & Son, Chartered Civil Engineers, Albion Chambers, King-street, Nottingham. Deposit £5 5s

APRIL 30.—**Kingston-upon-Thames.**—Roads and sewers on housing site, for the Corporation. Borough Surveyor. Deposit £1 1s.

MAY 1.—**Gloucestershire.**—ROAD.—Construction of a reinforced concrete road surface water drainage, and other subsidiary works for a new by-pass at Longleavens, and the widening of the existing road in reinforced concrete, kerbing surface-water drainage, and other subsidiary works near the "Plough," at Staverton, for the C.C. County Surveyor, Shire Hall, Gloucester. Deposit £2 2s.

MAY 2.—**Roscrea.**—REPAIRS.—Repairs to road and cottages under Roscrea No. 1 Rural District, Scheme No. 202, in accordance with plan and specification prepared by the Engineer, Irish Sailors' and Soldiers' Land Trust, 30, Lower Fitzwilliam-street, Dublin. Deposit £1 1s.

Competitions.

(*See Competition News, page* 590.)

Auction Sales, Tenders, etc.

APRIL 20.—**Streatham Hill.**—Veryard & Yates, useful building materials, 64, Leigham Court-road. Auctioneers, 365, Norwood-road, S.E.27.

✱APRIL 21.—**255, Clapham-road, S.W.**—Veryard & Yates, nearly new timber and well assorted building materials. Auctioneers, 365, Norwood-road, S.E.27.

APRIL 21.—**Kensington, W.**—Messrs. Drivers, Jonas & Co. will sell, at the London Auction Mart, freehold ground rents, freehold property at Kensington. Auctioneers, 7, Charles-street, St. James's-square, S.W.1

APRIL 21.—**London, E.2.**—Goddard & Smith, at 86 and 100, London-street, Bethnal Green, builders' and decorators' material and effects. Auctioneers, 70, Seymour-place, W.1.

APRIL 21.—**London, S.W.1.**—Hampton & Sons, freehold building land at Woldingham, Surrey, of over 35 acres. Auctioneers, 20, St. James's-square, S.W.1.

APRIL 21.—**London, S.W.**—Veryard & Yates, timber and building materials, 255, Clapham-road. Auctioneers, 365, Norwood-road, S.E.27.

APRIL 28 AND FOLLOWING DAYS.—**J. T. Skelding & Co., *re* P. & W. Anderson, Ltd.** (in liquidation). By order of Receiver for the Debenture Holders, at Yeoman-street, plant yard off Plough-road, Deptford, S.E. Contractor's plant and machinery. Auctioneers, 48, Gresham-street, Guildhall, E.C.2.

APRIL 30.—**London, E.C.**—Leslie Raymond, at the London Auction Mart, 155, Queen Victoria-street, E.C., building sites and ground rents at Golder's Green and Hendon.

MAY 2.—**Hertford.**—Brand & Oram, Hertford, and Ralph Pay & Taylor, 3, Mount-street, London, W. 1, auctioneers, at the Dimsdale Arms Hotel, Hertford, freehold building land.

✱MAY 5.—**Bridgnorth.**—Perry & Phillips, at Stanmore Hall, portion of fixtures and fittings from demolition of part of mansion. Auctioneers, Bridgnorth.

✱MAY 5.—**Deptford, S.E.**—J. T. Skelding & Co., at Yeoman-street Plant Yard, off Plough-road, Deptford, S.E., contractors' plant and machinery, cranes, 150 k.w. generating set, portable engine, petrol and oil engines, concrete mixers, railway track, wagons, pumps, offices, sheds, timber, &c. Auctioneers, 48, Gresham-street, Guildhall, E.C.2.

MAY 12.—**Eltham, Kent.**—Hampton & Sons, by order of Executors, residential property, &c., "Conduit Lodge," in all over 5½ acres. Auctioneers, 20, St. James's-square, S.W.1.

MAY 13.—**Reigate.**—Hampton & Sons, at the White Hart Hotel, freehold building sites, part of the Margery estate. Auctioneers, 20, St. James's-square, S.W.1.

MAY 20.—**West Sussex.**—Messrs. Knight, Frank & Rutley, at The Town Hall, Horsham, by direction of Ankerson's Estates, Ltd., freehold agricultural, sporting and building estate, High Hurst Manor. Auctioneers, 20, Hanover-square, W.1.

MAY 21.—**London, W.1.**—Knight, Frank & Rutley, freehold residence, "The Deanes," Althorpe-road, St. Albans. Auctioneers, 20, Hanover-square, London, W.1.

✱NO DATE.—**Deptford, S.E.**—J. T. Skelding & Co., at 38–40, Croft-street, Deptford, S.E., wood working machinery, stock of timber and hardwood, builders' stock and plant, portable paint spraying machine Auctioneers, 48, Gresham-street, Guildhall, E.C.2.

Public Appointments.

✱APRIL 20.—**Northampton.**—Building Inspector to supervise the erection of houses required by the C.B. Borough Engineer, Guildhall, Northampton.

APRIL 21.—**Dewsbury.**—Architectural Assistant (temporary in first instance) required by the B.C. Town Clerk, Town Hall, Dewsbury.

APRIL 22.—**Folkestone.**—Clerk of Works required by the B.C. in connection with the erection of a band pavilion. Town Clerk's Office, Folkestone.

✱APRIL 24.—**London.**—Assistant to the Administrator of Housing Development Schemes for the L.C.C. Administrator of Housing Development Schemes, The Old County Hall, Spring Gardens, S.W.1, marked "Assistant to Administrator."

APRIL 24.—**Southampton.**—(1) General Architectural Assistant; (2) Temporary General Architectural Assistant, required by the County Borough Council. Town Clerk, Municipal Offices.

APRIL 25.—**Durham.**—Clerk of Works required in the Education Department by the County Council. Director of Education, Shire Hall.

✱APRIL 27.—**Barrow-in-Furness.**—Architectural Assistant required. L. Hewlett, Town Clerk, Town Hall.

✱NO DATE.—**Sudan.**—Two Foremen of Works required by the Sudan Government Railways. The Advisory Engineer, Sudan Government, Wellington House, Buckingham Gate, S.W.1.

LAND, PREMISES, Etc.
FOR SALE, TO LET, & WANTED.

Six lines or under 4s. 6d., each additional line 6d.

NEW INDUSTRIAL or HOUSING SCHEME.

FOR SALE or LET on Lease, Large JOINERY WORKS, Offices, Covered Timber Store, Half-acre Yard, and Foreman's House, in proximity of important town. Cheap building plots, and sand and limestone on estate. Working staff and cheap labour available.—Apply, Box 226, Office of "The Builder."

WATFORD, BUSHEY, PINNER, NORTHWOOD, ST. ALBANS and District.—FREEHOLD SITES for Residences, Houses, and Villas in these popular N.W. London districts, with its excellent and rapidly improving rail facilities are available at very reasonable prices.—Agents for the principal Building Estates, STIMPSON LOCK & VINCE, 9, Station-road, Watford, and branches. Telephone 1155 (two lines). Send requirements.

CROWN LANDS.

COCKSPUR-STREET, TRAFALGAR-SQUARE.

An EXCELLENT BUILDING SITE with Frontages to Cockspur-street and Pall Mall East, to be LET on Building Lease for 80 years, comprising Nos. 2, 3, and 4, Cockspur-street, and Nos. 13, 14, 15, 16, and 17, Pall Mall East, having Frontages of about 108 ft. to Cockspur-street and about 105 ft. 6 in. to Pall Mall East, with an area of about 14,507 sq. ft. Suitable for the erection of first-class shops, with showrooms and offices over. Eminently suitable for shops, shipping offices, banks, or insurance offices.—For particulars apply to Mr. JOHN MURRAY, F.S.I., 11, Suffolk-street, Pall Mall, S.W. 1.

TO SPECULATORS and BUILDERS for development.—Unusual opportunity, Sussex, adjoining railway station, about half hour from Eastbourne, 38 ACRES grand FREEHOLD LAND, in one square block, nearly 3,800 feet frontage to three public roads. Rail siding adjoins property.—Apply, A. BURTENSHAW & SON, Land Agents, Hailsham, Sussex.

TO CONTRACTORS AND OTHERS.—EXTENSIVE RIVERSIDE PREMISES TO LET, WESTMINSTER, area three-quarters of an acre, jetty with barging berths, large area of sheds, stabling, etc. Long lease to be had.—Particulars of LEOPOLD FARMER & SONS, Factory Specialists and Surveyors, 46, Gresham-street, Bank, E.C.2 and Kilburn, N.W.

CROWN LANDS.

EXCELLENT BUILDING SITE TO BE SOLD, being the site of Nos. 110 to 116 (even), Curtain-road, and Nos. 1 to 10, Union-place, Shoreditch, with frontages to Curtain-road and Dereham-place. Area about 8,540 sq. feet. Suitable for erection of shops, offices, warehouses, or other business premises. Now let on short tenancies.—For particulars apply to Mr. JOHN MURRAY, F.S.I., 11, Suffolk-street, Pall Mall, S.W. 1.

By order of Executors.
For Residential or Building purposes.
ELTHAM, KENT.
close to stations, 'buses, trams, and golf courses.

"CONDUIT LODGE."
Medium-size FREEHOLD HOUSE, on Sandy Loam Soil, containing Hall, Three Receptions, Loggia, Conservatory, Bath, nine Bed and Dressing-rooms, and Offices.
Stabling, Garages, Greenhouses, Farmery, etc.
Delightful old-world Gardens, with Paddock.
In all, over
5½ ACRES
(a small portion being held from the Crown).
Important unrestricted frontages to two thoroughfares, with services and main sewer.
VACANT POSSESSION.

HAMPTON & SONS will SELL the above BY AUCTION, at the ST. JAMES'S ESTATE ROOMS, 20, St. James's-square, S.W. 1, on TUESDAY, 12th MAY (unless previously sold).
Solicitors: Messrs. Saw & Sons, Bank Chambers, 183, Trafalgar-road, Greenwich, S.E. 10.
Particulars from the Auctioneers, 20, St. James's-square, S.W. 1.

TO Builders and Speculators.—TO LET on Building Lease, a Site occupying an important position adjoining Cheapside. Ground rent, £1,700 per annum, with liberal building finance.—Apply, Box 213, Office of "The Builder."

WANTED to purchase, to commission required, BLOCKS of HOUSES (not weeklies), Factories, Shops, etc.—Send particulars to Investor's Surveyor, FRANK DURRANT, F.A.I., 114, Cheapside, E.C.2.

HOUNSLOW.—Three parcels of RIPE FREEHOLD BUILDING LAND, having frontages of 193 feet and 140 feet to Elmsworth-avenue, and 35 feet to Avonwick-road. Well situated close to Heston Hounslow (District Railway) and main High Street. Will be SOLD BY AUCTION at the ESTATE SALE ROOMS, 386, High-road, Chiswick, W.4, at 8 p.m. on THURSDAY Evening, 30th APRIL, 1925, by Messrs. TYSER, GREENWOOD & CO., 386, High-road, Chiswick, W.4; Bedford Park Estate Offices, Turnham Green Station, W.4; and the Estate Office, Chiswick Park Station, W.4; from whom all particulars can be obtained.

TO Builders, Contractors and Cabinet Makers.—YARD and WORKSHOPS, about 5,000 ft. super.; Office and Residence FOR SALE. FREEHOLD, W.12 district; 4 miles of Charing Cross. Motor and woodworking machinery, all in going order. Telephone. Vacant possession. All at £1,800.—Box 289, Office of "The Builder."

TO Builders and Speculators.—TO LET on BUILDING LEASE a SITE occupying an important position adjoining Cheapside. Ground rent, £1,700 per annum, with liberal building finance.—Apply, Box 293, Office of "The Builder."

TO LET BY PRIVATE TREATY.

CROWN LANDS.

REGENT-STREET, NEAR PICCADILLY CIRCUS.

EXCELLENT BUILDING SITE to be LET by PRIVATE TREATY on Lease for 80 years, comprising No. 16, Regent-street, and No. 7, Market-street.
Area about 14,700 feet super.
Apply to Mr. JOHN MURRAY, F.S.I., 11, Suffolk-street, Pall Mall, S.W. 1.

PRICES CURRENT OF MATERIALS

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 3 6
Second Hard Stocks	3 18 6

Per 1,000. Delivered at London Goods Stations.

	£ s. d.
Flettons, at King's Cross	2 13 3
Do. grooved for plaster	2 15 3
Do. Bullnose	3 8 3
Best Stourbridge Fire brick:— 2½ in.	8 11 0

GLAZED BRICKS—

	£ s. d.
Best White Ivory, and Salt Glazed Stretchers	2 0 0
Headers	21 10 0
Quoins, Bullnose and 4½in Flats	28 10 0

	£ s. d.
Best Blue Pressed Stalfs	9 5 0
Do. Bullnose	9 15 0
Blue Wire Cuts	7 5 0
3 in.	10 3 0
D'ble Str'tch'rs	30 10 0
D'ble Headers	27 10 0
One Side and two Ends	31 10 0
Two Sides and one End	32 10 0
Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.
Delivered London

	s. d.		s. d.
2 in. per yd. super	1 11	3 in. per yd. super	2 9
2½ in. "	2 4	4 in. "	3 6

	s. d.	
Thames Ballast	10 6	per yd.
Pit Sand	13 9	" "
Thames Sand	14 6	" "
Best Washed Sand	14 6	" "
¾ in. Shingle for Ferro-Concrete	12 9	" "
½ in. "	14 0	" "
¾ in. Broken Brick	11 6	" "
Pan Breeze	7 6	" "

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement. British Standard Specification. Test £2 18 0 to £3 3 6 51s. alongside at Vauxhall in 80-ton lots.

Ferrocrete per ton extra on above. 0 10 0

"Lightning" Brand, an aluminous cement of British manufacture. Per ton, f.o.r., manufacturer's works 5 0 0

Per ton delivered in London area in full van loads.

	£ s. d.
Super Cement (Waterproof)	4 5 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
" " Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
" " White	3 12 6
" Fine	5 12 0
Sirapite, Coarse	3 9 0
" Finish	3 17 0
Grey Stone Lime	2 11 9
Chalk Lime	2 11 9
Best Ground Blue Lias Lime	2 4 6
"Hydralime" (packed in sacks 84lbs. net each	60/9–61/9
(delivered to station)	52/0–53/0
Hair "	17 "
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube. s. d. 2 9½

Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube. 2 11½

PORTLAND STONE—

Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube. 4 4

Do. do. delivered on road wagons at above stations, per ft. cube. 4 5

White basebed, 3d. per ft. cube extra.

NOTE.—1d. per ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

HOPTON-WOOD STONE—

Delivered at any Goods Station, London.

	s. d.
Small random blocks, up to 10 ft. cube, P. ft. cb.	7 0
Random blocks from 10 ft. and over "	17 0
Sawn two sides "	27 0
Sawn three or four sides "	32 0

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station, London.

	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per ft. super	5 6
6 in. rubbed two sides, ditto "	6 0
3 in. sawn two sides slabs (random sizes) "	2 3½
2 in. to 2½ in. sawn one side slabs (random sizes) "	1 6½
1½ in. to 2 in. ditto, ditto "	1 4

HARD YORK—

Delivered at any Goods Station, London.

	s. d.
Scappled random blocks Per ft. cube	6 3
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per ft. super	5 1½
6 in. rubbed two sides ditto "	6 1½
4 in. sawn two sides slabs (random sizes) "	2 10
3 in. ditto ditto "	2 1½
2 in. self-faced random flags Per yd. super	9 0

ARTIFICIAL STONE.

Delivered in London Area in full van loads, per ft. cube:—Plain, 6s. 6d.; Moulded, 7s. 9d.; Cills, 8s. 3d.

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£32 0	3 × 6	£23 0
4 × 9	28 0	3 × 11	28 0
4 × 8	26 0	2 × 11	28 0
4 × 7	25 0	3 × 9	25 0
3 × 8	24 0	2½ × 9	25 0
3 × 7	23 0	3 × 4½	23 0
2½ × 7	22 0	3 × 4	23 0

WOOD (*continued*).

PLANED BOARDS.

1 11	£22 0	1×9	£30 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
¾	21/–	1¼	32/6
1	23/–	1½	37/6
1	25/–		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	25/–
1¼	32/6
1½	37/6

MATCHINGS (BEST).

Inches.	per sq.
¾	16/6
¾	20/–
1	25/–

BATTENS.

Inches.	s. d.
¾ × 2	2 6 per 100 ft.

SAWN LATHS.

Per bundle	0 2 4
Dry Wainscot Oak, per ft. super, as inch	0 2 0 to 0 2 6
¼ in. do. do.	0 1 6 to 0 2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0 1 9 to 0 2 6
Cuba Mahogany	0 3 0 to 0 3 6
Teak (Rangoon, Moulmein or Java), per ft. cube	0 14 0 to —
American Whitewood planks, per ft. cube	0 12 0 to 0 14 0
Best Scotch glue, per cwt.	4 10 0 to —
Liquid Glue, per cwt.	4 7 0 to 5 10 0

SLATES.

1st quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

Per 1,000 f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 12 6
Ditto hand-made ditto	5 17 6
Ornamental ditto	6 2 6
Hip and valley tiles (per dozen) Hand-made	0 9 6
Machine-made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R.S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
" Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.
To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
½ in.	16 10 0	⅝ in. to ¾ in.	13 10 0
⅜ in.	14 10 0	⅞ in. to 2¼ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

Tubes. Sizes ⅛" to 6"	Fittings. ½" & under.	Fittings. over ½" to 6"	Flanges. ½" & under.	Flanges. over ½" to 6"
Black Gas	55 %	47½ %	50%	57½ %
Blue Water	50 %	42½ %	45%	52½ %
Red Steam	45 %	37½ %	40%	47½ %
Galv'd Gas	40 %	37½ %	40%	47½ %
" Water	33⅓ %	32½ %	35%	42½ %
" Steam	27½ %	27½ %	30%	37½ %

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/2½	11½d.	3½d.
3½ in.	1/4	1/0½	3½d.
4 in.	1/5	1/2½	3½d.
4½ in.	1/6½	1/4	4½d.
5 in.	1/9½	1/5½	5½d.

O.G. GUTTERS.

3 in.	1/7	1/3½	3½d.
3½ in.	1/7	1/3½	3½d.
4 in.	1/8½	1/4	3½d.
4½ in.	1/10½	1/6½	4½d.
5 in.	2/3	1/9½	5½d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/9½	1/2½	1/8½
2½ in. "	1/11½	1/4	2/0½
3 in. "	2/4½	1/8	2/6
3½ in. "	2/10	2/–	2/10½
4 in. "	3/3	2/4½	3/6

L.C.C. COATED SOIL PIPES—London Prices, ex Works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6fts. plain	2 11	2 3	2 9
2½ in. "	3 5	2 6	3 5
3 in. "	4 1	2 9	4 0½
3½ in. "	4 5½	3 3	4 8½
4 in. "	4 11½	3 9½	5 5½

L.C.C. COATED DRAIN PIPES—London Prices ex Works.

	Pipe.	Bends, stock angles.	Branches stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 3	5 9	7 8
4 in. " "	6 3	6 11	9 6
5 in. " "	7 10	12 0	16 3
6 in. " "	9 6	15 0	20 9

Gasken for jointing, 38/6 per cwt.

IRON—	Per ton in London. £ s. d.		£ s. d.
Common Bars	13 10 0	to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 10 0	..	15 10 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	12 0 0	..	13 0 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	12 0 0	..	13 0 0
Hoop iron, basis price	16 0 0	..	17 0 0
" Galvanised	31 0 0	..	32 0 0
Soft Steel Sheets, Black—Ordinary sizes to 20 g.	14 10 0	..	15 10 0
" " " 24 g.	15 10 0	..	16 10 0
" " " 26 g.	17 10 0	..	18 10 0

Sheets Flat Best Soft Steel, C.R. & C.A. quality—

Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	20 0 0	..	22 0 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 0 0	..	23 0 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 0 0	..	26 0 0

Flat and Galvanised Corrugated Sheets—

Ordinary sizes, 6 ft. to 9 ft. to 20 g.	19 10 0	..	20 10 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	20 0 0	..	21 0 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	23 0 0	..	24 0 0

Sheets Galvanised Flat, Best quality—

Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	22 10 0	..	23 10 0
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..	26 10 0
Best Soft Steel Sheets, 26 g.	26 0 0	..	27 0 0
Cut Nails, 3 in. to 6 in. (under 3 in. usual trade extras.)	20 10 0	..	22 0 0

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD—Sheet, English, 4 lb. and up	45 10 0
Pipe in coils	46 0 0
Soil Pipe	49 0 0
Compo pipe	50 0 0

NOTE—Country delivery, 30s. per ton extra; lots under 3 cwt., 2s. per cwt. extra, and over 3 cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills per ton	31	0	0 —
Do., ex country, carriage forward per ton	32	0	0 —

COPPER.

		s. d.
Seamless Copper tubes (basis)	per lb.	1 1½
Strong sheet	"	2 3
Thin	"	2 4
Copper nails	"	2 3
Copper wire	"	2 4

PLUMBERS' BRASS WORK.
Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/–	45/–	76/–	153/–	246/–	510/– per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/–	92/–	174/–	300/–	588/– per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/–	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/–	14/–	23/–	30/–	42/– per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
7/6	11/–	17/–	29/–	36/–	63/– per doz.

BRASS SLEEVES.

1¼ in.	2 in.	3 in.	3½ in.	4 in.
10/–	12/–	20/–	24/–	31/– per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/–	56/–	98/–	162/–	228/– per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1¼ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/–	41/–	56/–	101/– per doz.
8 lbs. S traps	35/–	45/–	66/–	126/– "

TIN—English Ingots, 2 4 per lb. SOLDER—Plumbers' 1/2, Tinmen's 1/4, Blowpipe 1/5 per lb.

PAINTS, &c.

		£ s. d.
Raw Linseed Oil, in pipes	per gallon	0 4 2
" " " in barrels	"	0 4 4
" " " in drums	"	0 4 7
Boiled " " in barrels	"	0 4 7
" " " in drums	"	0 4 10
Turpentine in barrels	"	0 5 6
" in drums (10 gall.)	"	0 5 9
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)		56 5

GENUINE WHITE LEAD PAINT—

"Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Spedol," "Polacco" and other best brands (in 14 lb. tins) not less than 5 cwt. lots	per ton delivered	57 5 0
Red Lead, Dry (packages extra)	per ton	55 10 0
Best Linseed Oil Putty	per cwt.	0 15 0
Filocol	"	0 15 "
Size. XD Quality	fkn	0 3 6

Continued on next page.

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

	Per Ft.		Per Ft.
15 oz. fourths ..	3½d.	32 oz. fourths	8½d.
15 „ thirds	4½d.	32 „ thirds	10½d.
21 „ fourths ..	5d.	Obscured 8hcet, 15 oz.	4d.
21 „ thirds	6½d.	„ „ 21 „	5½d.
26 „ fourths ..	6d.	Fluted 15oz. 6½d., 21oz.	9½d.
26 „ thirds	7½d.	En'lled 15oz. 5½d., 21 oz	7½d.

Extra price according to size and substance for square-cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
⅛ Rolled plate	4½d.
⅓ Rough rolled	5½d.
¼ Rough rolled	5½d.
Figured Rolled, Baltic, Oceanic, Arctic, Stippolyte and small and large Flemish white ..	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon. £ s. d
Oak Varnish	Outside	0 14 0
Fine ditto	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Copal Carriage	ditto	1 4 0
Best Ditto	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 6
Fine Copal Flatting	ditto	1 0 6
Hard Drying Oak	ditto	0 18 0
Fine Hard Drying Oak	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 2 0
Best ditto	ditto	1 12 0
Best Japan Gold Size		0 10 0
Best Black Japan		0 10 6
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 7 6
Berlin Black		0 14 6
Knotting (patent)		5 0
French and Brush Polish		0 17 0
Liquid Dryers in Terebine		0 9 0
Cuirass Black Enamel		0 7 0

PROPOSED NEW BUILDINGS & OTHER WORKS.*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; C.B. for County Borough; B.E. for Board of Education; M.A.B. for Metropolitan Asylums Board; and M.W.B. for Metropolitan Water Board.

ABERDARE.—The U.D.C. is to erect tramways' passengers' shelters, at an estimated cost of £350.

ABERDEEN.—The T.C. passed plans: Extension of Hanover-street public school and alterations at "Oakbank" School, per J. A. O. Allen, architect.—The Burgh Surveyor has submitted preliminary proposals for a new car building and repair workshops, and also for new car sheds, at an estimated cost of £18,800.—A house costing £840 is to be erected for the Superintendent of the Water Works, at Invercannie.

BARKING ABBEY.—Essex E.C. have now passed plans for the erection of a dining hall at the school, at a cost of about £4,000.

BATLEY.—A scheme for the reconstruction of the temperance hall, at a cost of £3,000 or £4,000 is under consideration.

BLACKBURN.—The Corporation has decided to erect 26 houses and 16 flats on the Brownhill estate, at an estimated cost of £18,228; application for sanction to borrow the amount is being made to the M.H.

BLACK NOTLEY.—The Essex C.C. is to provide additional sanatorium accommodation, at an estimated cost of £110,000.

BLYTH.—The T.C. are to build another 50 houses.

BRECON.—The T.C. has received plans for the new filters and service reservoir, to be provided at an estimated cost of £4,000.

BRENTWOOD.—Essex C.C. have approved plans for a verandah at the mental hospital, at a cost of £1,500.

BROUGH (YORKS).—Plans have been approved by the Licensing Justices for a residential hotel, near Catterick Camp. The estimated cost is £20,000.

BURTON-ON-TRENT.—The T.C. are negotiating for a housing site near High Bank-road.

BUXTON.—Tenders were submitted to the T.C. for parlour and non-parlour type houses proposed to be erected on the Heath Grove and Cross-street sites respectively. It was resolved that application be made to the M.H. for sanction to borrow the sum of £15,700, for the erection of 28 houses of the non-parlour type in Cross-street, including street works, &c.—The surveyor was authorised to obtain tenders for the external and internal painting and decorating of Kents Bank-road School.

CAERPHILLY.—The Caerphilly and District Miners have decided to extend the district hospital, at an estimated cost of £20,000.

CARDIGANSHIRE.—The Main Roads Committee proposes to expend £6,500 on Trecefel bridge improvement.

CHEPSTOW.—The Garden Village Society is to erect a further 50 houses at Severn Tunnel Junction.

CHERTSEY.—The M.H. has approved the U.D.C.'s scheme to build 46 more houses.

CLAYTON.—The proposed Home for Mentally Defectives is to be provided with accommodation for 220 beds, at an estimated cost of £179,000, including the site at Westwood. Bradford Corporation are to seek M.H. sanction to proceed with the scheme.

COBHAM.—Land is to be acquired for the extension of the Cottage Hospital.

COVENTRY.—The T.C. passed plans: Presbytery, Stanley-street, for the Rev. L. S. Emery; Sunday school Queensland-road, for the trustees of Queen's-road Church; 16 houses, for Messrs. Philpot Bros.; eight houses, Burlington-road, for Mr. J. W. Godfrey; 12 houses Holmfield-road for Mr. Geo. Claridge; 4 houses David-road for Messrs. Ives & Rushby 26 lock-up shops and 52 flats Albany-road and Broadway for Messrs. Philpot Bros.; 9 houses Queen Mary's-road for Mr. T. Randle; 26 houses Allesley Old-road for Mr. T. Seal.

DAGENHAM.—Essex E.C. have passed sketch plans for a caretaker's house at Arnold-road school, to cost about £650.

DARLINGTON.—The T.C. passed plans: T. Rodgers, houses, Geneva-road, near Yarm-road; J. E. Chilton, two houses, Pierremont-gardens; seven houses, Thompson-street; four houses, Neasham-road, between Falmer-road and Grasmere-road; house, south side of Abbey-road, between Cleveland-avenue and Carmel-road; two houses, north side of Eastbourne-road, near Milton-street; E. Minors, school, Cockerton.

DOUGLAS (I.O.M.).—The Corporation has passed plans for 60 houses on the Hills estate.

DU LEY HILL.—Instructions have been given to the City Architect to press forward the completion of plans for a secondary school for girls at Bolling Hall.

DURHAM.—The R.D.C. is selecting a site with a view to formulating a new housing scheme at Coxhoe.

EASINGTON.—The R.D.C. passed plans: 26 houses on the New Coast-road at Horden; and Roman Catholic church at Horden.—The Council are considering the erection of 26 houses.

EASTBOURNE.—A special committee of the T.C. have approved the principle of the provision of medical baths.

FARSLEY.—The U.D.C. has instructed Mr. Bray, architect, to prepare plans for 30 houses.

GLASGOW.—The Dean of Guild Court passed plans: Provan Picture House Co., picture house, Castle-street; J. Graham, picture house, corner of Castle street and Garngadhill; Roman Catholic Archdiocese of Glasgow, school, Garngad-road.

GRAYS.—Essex C.C. has passed plans prepared by the architect for alterations to the Bridge School at an estimated cost of £550.

GUILDFORD.—The T.C. decided to purchase for housing about 96 acres of land belonging to Lord Onslow.

HALIFAX.—A building scheme is being considered for the erection of more commodious premises for the employment exchange.

HOVE.—The T.C. passed plans: Clayton & Black, for the Corporation, fire station and electric station offices, Hove-street; Clayton & Black, for C. Marchant, 19 garages, Princes-avenue; Whinney, Son & Hall, for Midland Bank Co., bank premises, 125, Church-road; E. Gladman, eight houses, Marmion-road.

ILFORD.—The U.D.C. passed plans: J. Winkle, 18 houses, Avenue-gardens, Eastern-avenue; R. Stroud, 20 houses, Beddington-road, also 26 houses Wallington-road; Hobbs Bros., 115 houses and 26 garages; A. P. Griggs, 92 houses; P. E. Brand, Ltd., 22 houses, Clifford-gardens, Jerrold-avenue.

KINGSTON.—The proposed scheme to extend the Grammar School will cost about £12,800.

LARNE.—The U.D.C. are to loan £1,280 for housing purposes.

LEWES.—The East Sussex E.C. are proposing to erect a new secondary school for boys.

LONDON (CLAPHAM).—The L.C.C. Education Committee are to enlarge the Acre-lane Home for mentally defective boys at a cost of £9,000.

LONDON (ISLINGTON).—The L.C.C. Education Committee are to enlarge the Montem-street elementary school by 160 places.

LONDON (KENSINGTON).—The B.C. are to erect 35 additional houses on the St. Quinton estate at a a cost of £23,000.

LONDON (LEWISHAM).—The Mercers' Co. has prepared plans for their estate in Baring-road, the cost being estimated at £6,300.

LONDON (MILE END).—The L.C.C. Education Committee propose the establishment of a school for 50 tuberculous children, at a cost of £3,233.

LONDON (SOUTHGATE).—The U.D.C. have made application to the M.H. for permission to borrow £1,575 to purchase a site in the Green-lanes for a swimming bath, which is now under consideration.

LONGBENTON.—The U.D.C. is to seek the sanction of the M.H. to proceed with the erection of an additional 56 houses on the Glebe site.

MANCHESTER.—Messrs. J. Earnshaw & Son, architects, 42, North John-street, Manchester, are preparing plans for the erection of a new parsonage for the Brookfield Unitarian Church, at Hall-street, Gorton. Messrs. Sisley & Platt, architects, 66, Deansgate, Manchester, are preparing plans for new offices, workshops, &c., off Renshaw-street, and Ruby-street, for Mr. W. H. Knowles, of 63, Higher Cambridge-street.—The E.C. are inquiring as to additional land for the proposed buildings for the Levenshulme secondary schools. The war memorial is to be erected by the British Legion on the island site in Errwood-road, Levenshulme. The City Architect is to prepare detailed plans for the reconstruction and enlargement of the Hyde tramcar works, and also for the new car shed at Birchfields-road. Loan sanctions as follow have been received:—£7,450 for the erection of a Cheetham clinic; £9,000 for the erection of a library at Withington.

MARKET HARBOROUGH.—A cottage and stables are to be erected at Springfield-street, at a cost of £950.

MICKLEBRING.—The Markham Main Colliery Co. are to construct a new colliery village with houses to accommodate about 5,000 people.

MIDDLETON.—The T.C. approved the lay-out plan for 52 houses to be erected on the south portion of the Boarshaw estate.

MITCHAM.—Surrey E.C. are to proceed to build an elementary school.

MUSSELBURGH.—The Dean of Guild Court sanctioned plans for 14 semi-detached villas for Alex. Morison, on the Newhailes estate.

NEWCASTLE.—The Town Improvement and Streets Committee has passed plans for a large new operating theatre at the Fleming Memorial Hospital for Sick Children; and also for dormitories and a chapel to accommodate 200 persons at the Convent de la Sagesse, in Jesmond Dene-road.

NEWPORT (MON).—The Roman Catholic schools' managers have instructed the preparation of plans for a new school.

NEWRY.—The U.D.C. are to borrow £16,000 for the erection of 42 houses in Chapel-street.

OLDHAM.—The authorities of the Salvation Army have acquired the site known as "Dr. Garricks," at Hollinwood, where it is proposed to erect an assembly hall.—The T.C. are to be asked to sanction the purchase of a plot of land at Middleton Junction for the new generating station.

PENZANCE.—The provision of isolation hospital accommodation is under consideration.—The G.W.R. Utility Building Society are negotiating for sites.

PETERBOROUGH.—The T.C. have promised the subsidy to R. S. Jellings, who is to erect 10 more houses on the Westwood Grange estate. Tenders are to be invited for the erection of 12 houses on land in Star-road.

PORTLAND.—The U.D.C. have asked the Surveyor to prepare plans for the lay-out and for houses on land at Verne Common.

RANSDEN (ESSEX).—The County E.C. are to proceed with the erection of an elementary school.

RICHMOND (YORKS).—The R.D.C. approved plans, subject to the satisfaction of the M.H., for the erection of 80 cottages at Catterick Camp, by C. Walker, of York.

ROMFORD.—Essex E.C. has decided to proceed now with the scheme for extensions at the Royal Liberty School, estimated to cost £700.

SEATON DELAVAL (NORTHUMBERLAND).—The U.D.C. has approved plans for the lay-out of land and the erection of 90 houses on the Lord Hastings estate, Seaton Sluice, and other building developments are projected.

SHEFFIELD.—The M.H. has sanctioned the erection of 1,850 houses to be completed by October, 1926, and private builders are to erect 586 subsidy houses during the same period.

SMETHWICK.—A proposal to extend the drill hall is now on foot.

SOUTHPORT.—The T.C. has approved a scheme, submitted by Mr. N. Jones, for the erection of 12 houses on land at the rear of Beach Priory, adjoining Rotten-row; and also a draft plan submitted by a Liverpool firm for the lay-out of land for houses off Liverpool-avenue and Segar's-lane, Ainsdale.

SOWERBY BRIDGE.—The U.D.C. are to apply to the M.H. for sanction to borrow £2,800 for the erection of houses.

STOCKPORT.—The T.C. approved plans for 40 houses in respect of which a subsidy is asked for.

STOCKTON.—The T.C. has received permission from the M.H. for the erection of a further 120 houses on the Blue Hill estate, Norton.—The T.C. has approved plans for the erection of a new power house at the Imperial Boiler Works of Messrs. T. Sudson & Co., Ltd.—The T.C. has approved a scheme for the removal of the unhealthy area known as Housewife-lane.

THORNE.—The R.D.C. has prepared a scheme to deal with the sewage of the town and of the new colliery village about two miles distant. They have applied to the M.H. for sanction to a loan of £32,000. The engineers are W. H. Radford & Son, of Nottingham.

THORPE.—The Chertsey R.D.C. are to erect 4 cottages at Thorpe.

THUNDERSLEY.—Essex E.C. are to commence with the enlargement of the elementary school, at a cost of £1,500.

TILBURY.—Essex County Architect has prepared plans for enlarging the Tilbury Upper Ward elementary school at a cost of £3,360.

WORTHING.—The T.C. propose to build 200 houses in the next two years.

Steel Houses.

Work was recently started on the foundations for 100 Braithwaite steel houses, to be erected by the Bolton Corporation at Union-road, Tonge Moor, Bolton. The houses are of the non-parlour, two-story type, and will all be completed in sixteen weeks from the completion of the foundations for the first pair. Union wage rates are to be paid. We understand that the Bristol City Corporation are shortly to build twenty Braithwaite steel houses.

* See also our List of Contracts, Competitions, etc.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	0
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	32	0
Add if in underpinning in short lengths	" "	7	0
Add if in floors 6 in. thick	" "	3	3
Add if in beams	" "	3	9
Add if aggregate 1 : 2 : 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	2	6

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	1	10	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	0
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	8	6
½ inch on flats in two thicknesses	" "	6	3
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	2

MASON.

York stone templates fixed	per foot cube	13	0
York stone sills fixed	" "	22	0
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	20	0

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	5	0
Do. joists	" "	5	6
Do. roofs, floors and partitions	" "	6	0
Do. trusses	" "	8	6

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	35/6	40/-	45/-	72/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	" "	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		44/6	53/-	60/6
Do. tongued and grooved	"		49/-	57/6	65/-
Do. matchings	"	45/-	51/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	3
Deal-cased frames with 1 in. inner and outer linings, 1¼ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights: average size	"	3	9

DOORS.		1¼"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/7	1/8	1/11
Deal shelves and bearers	"	1/4	1/6	1/9
Add if cross tongued	"	2d.	2d	2d

STAIRCASES.	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS)			
6 in. barrel bolts	8½d.	Rim locks	2/-
Sash fasteners	11½d.	Mortice locks	4/6
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	16	3
Plain compound girders	"	19	0
Do. stanchions	"	21	9
In roof work	"	27	6

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/6	1/9	2/-	2/6
Ogee Do. Do.	"	1/9	2/-	2/6	3/3
Rain-water pipes with ears	"	1/9	2/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

Milled lead and laying in flashings and gutters	per cwt.	61	0
Do. Do. in flats	"	60	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft. run.	0	6
Soldered seam	" "	1	6
Copper nailing	" "	0	6

		½"	¾"	1"	1¼"	2"	4"
Drawn lead waste	per ft. run	1/2	1/9	2/0	3/4	4/0	
Do. service	"	1/8	2/2	2/7	3/10		
Do. soil	"						6/9
Bends in lead pipe	each					3/3	8/2
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	17/2	25/8	64/-		

PLASTERER.

			s.	d.
Render, float and set in lime and hair	per yard sup.		2	4
Do. Do. Sirapite	" "		2	7
Do. Do. Keen's	" "		3	7
Add sawn lathing	" "		1	7
Add metal lathing	" "		2	6
Portland cement screed	" "		2	2
Do. plain face	" "		3	3
Mouldings in plaster	per 1 girth		0	1½
One-and-a-half granolithic pavings	per yard sup.		5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	8
26 oz. Do.	" "	1	0
Obscured sheet	" "	1	1
¼ in. rolled plate	" "	0	9
⅜ in. rough rolled or cast plate	" "	0	10½
¼ in. wired cast plate	" "	1	4

PAINTER.

Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting 1 coat	" "	0	9
Do. 2 coats	" "	1	4
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	"	1	2
Preparing for and hanging paper	per piece	2/—to 4/	

* These prices apply to new buildings only. They cover superintendence by foreman and carry a profit of 10½ on the prime cost without establishment charges. A percentage of 11 should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

NEW COMPANIES

The particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 & 119, Chancery-lane, W.C.2, from the documents available at the Companies' Registry.

C. D. Gabell, Ltd. (203,768.) Registered February 12. 104, Albion-road, Stoke Newington, N. 16. General builders, decorators, &c. Nominal capital, £5,000.

Tribe & Robinson, Ltd. (203,713.) Registered February 9. Builders, house decorators, and contractors, &c. Nominal capital, £10,000.

Brick & Tile Industries, Ltd. (203,628.) Registered February 5. Commercial Chambers, Commercial-road, Hull. Manufacturers of and dealers in bricks, tiles, pipes, &c. Nominal capital, £5,000.

H. & S. Developments, Ltd. (203,677). Registered February 7. 245, Shaftesbury-avenue, W.C. 2. Estate agents, builders, &c. Nominal capital, £400.

Hubbard & Hammon, Ltd. (203,650). Registered February 6. Builders and decorators, &c. Nominal capital, £500.

Wirksworth Quarries, Ltd. (203,639). Registered February 5. Bank House, 286, Pentonville-road, King's Cross, N. Quarry-masters and stone merchants, &c. Nominal capital, £10,000.

Economists Decorators, Ltd. (203,609). Registered February 5. 58a, Brompton-road, S.W. 3. Builders, contractors, decorators, &c. Nominal capital, £3,000.

Margrett & Gloyne, Ltd. (203,084). Registered January 13. Builder and building contractor. Nominal capital, £3,000.

H. A. V. E. Joinery Works, Ltd. (203,590). Registered February 4. Joiners, timber merchants, &c. Nominal capital, £1,000.

Poling Pottery Brick & Tile Works. Ltd. (204,058). Registered February 24. 63, Ship-street, Brighton. Bricks, tiles, pipes, &c. Nominal capital, £1,000.

Parkers (Moseley) Joinery Works, Ltd. (204,009). Registered February 21. 116, Alcester-road, Moseley, Birmingham. Builder and contractor and woodworking. Nominal capital, £2,000.

G. W. Beattie, Ltd. (204,003). Registered February 21. Builder and contractor. Nominal capital, £2,000.

Lloyd Brothers, Ltd. (204,007). Registered February 21. Argyle Works, Swansea. Contractors and builders, painters, &c. Nominal capital, £10,000.

J. H. Naylor & Son, Ltd. (203,911). Registered February 18. 4, Celia-street, Burnley. Builders, contractors, decorators, &c. Nominal capital, £2,000.

R. & G. Brown (Amble), Ltd. (204,023). Registered February 21. Builders, building and general contractors, &c. Nominal capital, £10,000.

Coalbrook Builders, Ltd. (203,933). Registered February 19. Builders, house decorators, &c. Nominal capital, £1,000.

Arthur Jackson & Co., Ltd. (204,065). Registered February 25. Builders and building contractors. Nominal capital, £10,000.

W. R. Wood, Ltd. (203,951). Registered February 19. 22, Conduit-road, Woolwich, S.E.18. Timber Merchants, general builders, &c. Nominal capital, £1,500.

B.K.R. Developing Co., Ltd. (203,850). Registered February 16. 13, Marine Walk-street, Hythe, Kent. Builders, contractors, &c. Nominal capital, £1,000.

West End Brickworks, Ltd. (203,925). Registered February 18. Manufacturers of bricks, tiles, pipes, pottery, earthenware, &c. Nominal capital, £60,000.

Chase & Co., Ltd. (204,212). Registered March 3. 18, Motcomb-street, Belgrave-square, S.W.1. Builders and decorators, sanitary engineers, plumbers, shopfitters and electricians, &c. Nominal capital, £2,000.

William Gaskell & Co. (Orrell), Ltd. (204,154). Registered February 27. Moss-road, Orrell, near Wigan. Builders, contractors. Nominal capital, £1,000.

Rees, Morgan & Co. (Cardiff), Ltd. (204,149). Registered February 27. Builders and contractors. Nominal capital, £3,000.

John Busfield, Ltd. (204,174). Registered February 28. Lloyds Bank Chambers, 28 and 29, Grand Parade, St. Leonards-on-Sea. Consulting and constructional engineers, engineering and general contractors, &c. Nominal capital, £2,000.

Walmsley & Oldham, Ltd. (204,093). Registered February 25. 8, London-street, Fleetwood. Plumber, painter, decorator. Nominal capital, £3,000.

Adams & Marshall, Ltd. (204,096). Registered February 26. 24, Cromwell-place, South Kensington, S.W.7. Architects, surveyors, auctioneers, valuers, house, land and estate agents, &c. Nominal capital, £1,000.

Robert Marshall & Sons, Ltd. (204,087). Registered February 25. 177a, Portland-street, Southport. Builders and general contractors, including road construction and sewering, &c. Nominal capital, £2,000.

Lewis, Morgan & Co. (1925), Ltd. (204,361). Registered March 9. Builders' merchants and general building supply store proprietors, manufacturers of and dealers in bricks, slates, tiles, sanitary and other pipes, copings, paving stones and materials, &c. Nominal capital, £500.

Monolithic Concrete Houses, Ltd. (204,346). Registered March 7. 5, John-street, Bedford-row, W.C.1. Builders and contractors, &c. Nominal capital, £6,000.

E. R. Davison & Sons, Ltd. (204,339). Registered March 7. Builder, contractor and quarry owner. Nominal capital, £5,000.

H. Heather-Coy, Ltd. (204,244). Registered March 4. Upper Mulgrave-road, Cheam, urrey. Contractors, builders. Nominal capital, £3,000.

Bessant, Brown, Ltd. (204,209). Registered March 3. 91, Broomwood-road, Wandsworth Common, S.W.11. Building contractors, dealers in real and personal estates, buyers of lands and buildings, estate developers, &c. Nominal capital, £1,000.

George Hill & Son (Ledbury), Ltd. (204,243). Registered March 4. Broad-street, House, Old Broad-street, E.C.2. Builder and contractor. Nominal capital, £5,000.

TENDERS

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted*. † Denotes *provisionally accepted*.
§ Denotes *accepted subject to modifications*.
‡ Denotes *recommended for acceptance*.

ABERGAVENNY.—Twenty houses in Corporation-road, for the T.C. Borough Surveyor, architect:—

J. G. Thomas & Sons, Abergavenny	£12,616
Foster & Hill, Abergavenny	12,450
*Stubbs, Douglas & Co., Abergavenny	10,442
John Norman, Blaenavon (slate roof)	10,220

ASHTEAD.—Houses, for the R.D.C.:—

*H. H. & F. Roll, Epsom	£12,518

BLACKBURN.—Extension to children's sanatorium at Queen's Park Hospital, for the B.G. Mr. W Stirrup, F.R.I.B.A., architect, 14, Richmond-terrace. Quantities by architect:—

*Wm. Livesey & Sons, Ltd., Blackburn	£6,675

BLACKBURN.—Ferro-concrete bridge over the canal on the Arterial-road at Whitebirk, for the T.C.:—

*Gray's Ferro-concrete Co., Glasgow.	

BRIDGWATER.—Alterations at the Isolation Hospital, for the T.C. Borough Surveyor, Municipal Building:—

Stockham & Son	£338
S. Palmer	330
Geen & Son	325
Bryer & Son	299
*F. J. Cox	280

(All of Bridgwater.)

CARDIFF.—For erection of a convenience and extension of culvert at Beulah Cross-road, Rhiwbina, for the R.D.C. Mr. W. Farrow, engineer, 20, Park-place:—

William Cox, Llandaff, Cardiff	£959 8 6
John Harry & Son, Radyr, Glam	654 3 2
Edward L. Price, Canton, Cardiff	639 19 0
*Edwin Williams & Son, Tynant, Whitchurch, Glam	562 8 10

CWMBRAN.—Ten houses on the Two Locks site, for the Llantarnam U.D.C. Mr. A. F. Viney, engineer and surveyor, Council Offices:—

J. M. Broadfoot, Newport (Mon)	£6,100
*Beese Bros., Pontnewydd (Mon)	5,750
Surveyor's estimate	5,600

(Subject to M.H. approval.)

GRAVESEND.—Seven blocks of four houses, for the T.C.:—

†J. Clements: £1,800 per block.

GUILDFORD.—Workshops, engine sheds and other buildings at Bedford-road, for the T.C. Mr. W G. Cross, Borough Surveyor:—

Tribe & Robinson, Guildford	£3,119
R. Smith & Son, Guildford	2,880
*A. Ashendon, Guildford	2,390

HADLEY WOODS.—(*a*) House, and (*b*) garage, for Mr. W. G. Snell. Mr. A. E. Kingwell, F.R.I.B.A., architect:—

	(*a*)	(*b*)
S. Hooton	£4,297	£420
W. E. Silk	4,389	431
Quennell	4,351	520
Lovell & Son	4,663	353

HARWARDEN.—46 "A" and 48 "B" type houses at Saltney, near Chester, and 8 "A" type houses, at Abermordder, for the R.D.C.:—

*T. Boddy, Chester	£38,344

HARWICH.—Eight houses in Vansittart-street, for the T.C.:—

‡H. H. Bradford	£4,174

HEXHAM.—Fifty-four houses, for the U.D.C. Messrs. Knowles, Oliver & Leeson, of Newcastle, architects:—

*H. Wallace & Son.	

HOVE.—Twenty-two houses in Portland-road and 10 on the housing estate in Old Shoreham-road, for the B.C.:—

*The Condual Construction Co., Ltd., London	£47,279

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LOUDWATER.—Four flats, for the Loudwater Paper Mills :—

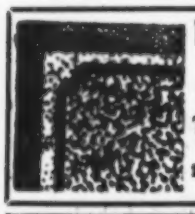
R. H. Harris & Co., Great Marlow	£2,950
H. Batting & Co., Beaconsfield	2,819
G. Biggs & Sons, Great Kingshill	2,646
A. C. Dean, High Wycombe	2,450
C. Jefferson & Co., High Wycombe	2,420
C. & H. Hazell, Hazlemere	2,369

LUTON.—Eight pairs parlour and four pairs non-parlour houses, at Leagrave and Limbary, for the R.D.C. :—

	Parlour, per pair.	Non-parlour, per pair.
E. Wing, Luton	£1,460 0..	£1,118
W. Sear, Leagrave	1,145 0..	1,120
H. Lacey & Sons, Luton	1,080 0..	900
A. E. Fensome, Leagrave	1,075 0..	892
A. Carter, Luton	1,064 0..	980
J. Frost, Luton	1,059 0..	936
A. Cole, Ltd., Luton	1,050 0..	870
A. Hayward, Luton	1,038 10..	963
*F. W. Janes, Ltd., Luton	970 0	813

LUTON.—Six pairs non-parlour houses at Houghton Regis, for the R.D.C. Mr. H. Pickering, surveyor, 73, West-parade, Dunstable :—

	Per pair.
A. Carter, Luton	£980 0
A. Hayward, Luton	963 0
Mead & Poulton, Dunstable	936 15
Luton Building Co., Luton	920 0
A. E. Fensome, Leagrave	912 0
H. Lacey & Sons, Luton	900 0
A. Cole, Ltd., Luton	870 0
*B. W. Wood, Dunstable	836 0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NETHERTON.—Double cottage, for the Fisherford, Auchterless (Rothienorman Station). Mr. W. L. Duncan, architect, Turriff :—

**Mason work*—Alex. B. Ogston, Fyvie.
**Carpenter work*—John Clark & Son, Upperthird Rothienorman.
**Slater work*—Chas. Dickie & Son, Turriff.
**Plaster work*—Paul McPherson, Inverurie.

PRESTWICH.—45 houses on the Ostrich-lane site, for the U.D.C. :—

*Morton Brick and Building Co.

SCHOLES.—Alteration to the Lodge, The Leas. Messrs. J. Berry & Sons, architects and surveyors, 3, Market-place, Huddersfield :—

**Mason*—R. Turner & Co., Holmfirth.
**Joiner*—Ernest Hampshire, Scholes Moor.
**Plumber*—W. E. Bailey, New Mill.
**Plasterer*—George Haigh, Scholes.
**Concretor*—E. H. White, Pinfold, Brierley Wood.

SEDGEFIELD.—(*a*) 14 houses at Cornforth-lane, and (*b*) 12 houses each, at New-road and Station-road, Ferryhill, for the R.D.C. :—

*F. W. Goodyear : (*a*) £400 14s. 3d. each ; (*b*) £405 and £416 each.

SOUTHPORT.—(*a*) 32 houses ; (*b*) 12 houses ; and (*c*) 6 houses, on the Shaw's-road housing site, for the T.C. :—

*P. Sutton	(*a*) £12,403
*Mr. Lea	(*b*) 5,202
*L. Nutter	(*c*) 2,127

SOWERBY BRIDGE.—Six houses on the Albert-road housing site, for the U.D.C. Mr. J. Eastwood, surveyor :—

Mason and bricklayer—
*C. Longbottom, Norland, Sowerby Bridge.
Carpenters and joiners—
*W. H. Leah & Son, Triangle, near Halifax.
Plumber and glazier—
*E. Spencer, Sowerby Bridge.
Painters—
*Hitchen & Thomas, Sowerby.
Electrician—
*J. Quain, Sowerby Bridge.
Slaters and plasterers—
*H. Castle & Co., Brighouse.

STEEPLE.—Remodelling at the elementary school, for Essex City Council :—

J. Rayner £900

STEEPLE BUMPSTEAD.—Offices at elementary school, for Essex C.C. :—

*E. G. French £394 13

TORQUAY.—Reconstruction of old Town Hall convenience, for the T.C. :—

*E. P. Bovey & Son £1,065

WATFORD.—Four sub-stations at Cassiobury Park Estate, for the T.C. :—

*C. Brightman & Son, Ltd. : £189 15s. each.

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WEST HARTLEPOOL.—Additional bathroom accommodation at the Superintendent's Lodge, Ward Jackson Park, for the C.B. ; F. Durkin, A.M.Inst.C.E. surveyor and engineer :—

*T. C. Forth & Co., West Hartlepool .. £100 10

WEYMOUTH.—Conveniences at Corfe-yard, for the T.C. :—

*Jenkins, Hitt & Grant, Ltd. £577

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